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# federal register

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Wednesday  
November 22, 1989

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- FOR:** Any person who uses the Federal Register and Code of Federal Regulations.
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- WHAT:** Free public briefings (approximately 3 hours) to present:
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  2. The relationship between the Federal Register and Code of Federal Regulations.
  3. The important elements of typical Federal Register documents.
  4. An introduction to the finding aids of the FR/CFR system.
- WHY:** To provide the public with access to information necessary to research Federal agency regulations which directly affect them. There will be no discussion of specific agency regulations.

### SAN FRANCISCO, CA

- WHEN:** November 29; at 9:00 a.m.
- WHERE:** Room 15138,  
450 Golden Gate Avenue,  
San Francisco, CA.
- RESERVATIONS:** Call Mary Walters at the San Francisco Federal Information Center,  
415-556-6600.

### SEATTLE, WA

- WHEN:** November 30; at 1:00 p.m.
- WHERE:** South Auditorium, 4th Floor,  
915 2nd Avenue,  
Seattle, WA.
- RESERVATIONS:** Call Carmen Meler or Peggy Groff at the Portland Federal Information Center on the following numbers:  
Seattle: 206-442-0570,  
Tacoma: 206-383-7970,  
Portland: 503-326-2222.

### WASHINGTON, DC

- WHEN:** December 7, at 9:00 a.m.
- WHERE:** Office of the Federal Register,  
First Floor Conference Room,  
1100 L Street NW., Washington, DC.
- RESERVATIONS:** 202-523-5240.



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# Rules and Regulations

Federal Register

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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510. The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

## DEPARTMENT OF AGRICULTURE

### Farmers Home Administration

#### 7 CFR Parts 1945 and 1980

#### Implementation of Provisions of the Disaster Assistance Act of 1989

**AGENCY:** Farmers Home Administration, USDA.

**ACTION:** Interim rule with request for comments.

**SUMMARY:** The Farmers Home Administration (FmHA) amends its regulations to provide special disaster assistance to eligible farmers and ranchers who sustained severe production losses to their 1988 or 1989 crop(s) as a result of natural disasters. This action is necessary to implement the provisions of the Disaster Assistance Act of 1989, (Pub. L. 101-82), dated August 14, 1989. The intended effect is to incorporate the law into existing FmHA regulations.

**DATES:** Interim rule effective November 22, 1989. Written comments must be submitted on or before December 22, 1989.

**ADDRESSES:** Submit written comments, in duplicate, to the Office of the Chief, Directives and Forms Management Branch, Farmers Home Administration, USDA, Room 6348, South Agriculture Building, 14th Street and Independence Avenue SW., Washington, DC 20250. All written comments made pursuant to this notice will be available for public inspection during regular working hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Mark Falcone, Senior Loan Officer, Farmer Programs Loan Making Division, Farmers Home Administration, USDA, South Building, 14th Street and Independence Avenue SW., Washington, DC 20250, telephone (202) 475-4019.

## SUPPLEMENTARY INFORMATION:

### Classification

This action was reviewed under USDA procedures established in Department Regulation 1512-1, which implements Executive Order 12291, and has been determined to be nonmajor because it will not result in an annual effect on the economy of \$100 million or more. The language in the Disaster Assistance Acts of 1988 and 1989, pertaining to FmHA, are very similar. As of October 18, 1988, requests for 1689 counties were received by FmHA to be designated as disaster areas as a result of disasters occurring in 1988. There was 1565 primary and 212 contiguous counties approved as of that date. As of October 10, 1989, requests for 670 counties had been received by FmHA to be designated as disaster areas as a result of disasters occurring in 1989. There were 172 primary and 163 contiguous counties approved as of that date. Based upon the above information, it is evident there will be less demand for emergency assistance from FmHA under the 1989 Act than under the 1988 Act, even considering the anticipated loans to be made as a result of Hurricane Hugo. In Fiscal Year 1989, 2806 emergency (EM) loans were made, totaling \$73.5 million. Only twelve farmers received guaranteed operating (OL) loan assistance in Fiscal Year 1989, under regulations developed as a result of the Disaster Assistance Act of 1988, totaling approximately \$536,000.

### Intergovernmental Consultation

For the reasons set forth in the final rule related to notice, 7 CFR part 3015, subpart V (48 FR 29115), June 24, 1983) and FmHA Instruction 1940-J, "Intergovernmental Review of Farmers Home Administration Programs and Activities" (December 23, 1983), Emergency Loans and Farm Operating Loans are excluded from the scope of Executive Order 12372, which requires intergovernmental consultation with State and local officials.

### Programs Affected

These changes affect the following FmHA programs as listed in the Catalog of Federal Domestic Assistance:  
10.404—Emergency Loans.  
10.406—Farm Operating Loans.

## Environmental Impact Statement

This document has been reviewed in accordance with 7 CFR part 1940, subpart G, "Environmental Program." It is the determination of FmHA that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment, and in accordance with the National Environmental Policy Act of 1969, Public Law 91-190, an Environmental Impact Statement is not required.

## Discussion of Interim Rule

FmHA is implementing this interim rule immediately with a 30-day comment period. The "Disaster Assistance Act of 1989," (Pub. L. 101-82), dated August 14, 1989, amended FmHA's statutory loan making authorities. It is necessary to implement these authorities upon publication to provide immediate assistance to farmers and ranchers who have suffered major crop production losses as a result of natural disasters in 1988 or 1989. During the most recent major disaster, many farmers and ranchers suffered major crop production losses in the Virgin Islands, Puerto Rico, South Carolina and North Carolina as a result of Hurricane Hugo in September 1989.

Farmers who have suffered severe production losses are in dire need of disaster program assistance to purchase livestock feed for replacement of feed crops lost as a result of the disaster(s), and to repay creditors and suppliers annual production loans, open supplier accounts, and installments due on intermediate and long term debts.

Also, farmers who do not qualify for Emergency (EM) loans may be in need of refinancing and reamortizing or rescheduling their 1989 operating loans and/or the annual installments due on other farm debt, which their present lenders will be reluctant to do without an FmHA guarantee.

The Act mandates changes in the emergency loan regulations and the guaranteed operating loan regulations. These changes ease the requirements for obtaining assistance under these programs, as did previous changes made as a result of the Disaster Assistance Act of 1988. By implementing these regulations immediately, assistance can be provided to many needy farmers and ranchers who, without this assistance,



would be in danger of losing their operations.

#### Background

The loan making, supervision and servicing of FmHA borrowers is governed primarily by the Consolidated Farm and Rural Development Act (CONACT) (7 U.S.C. 1921 et seq.). The purpose for revising the FmHA regulations at this time is to implement various sections of the Disaster Assistance Act of 1988 (Pub. L. 101-82), as it applies to certain farmer program loans. The sections of the Act affecting FmHA are as follows:

Section 107—Crop Insurance Coverage for the 1990 Crops.

Section 301—Emergency Loans.

Section 302—1990 Farm Operating Loans.

Due to the urgent need of financial assistance for many farmers and ranchers, FmHA has expedited the implementation of these changes.

#### Changes

The existing emergency (EM) loan regulations state that applicants will not be eligible for EM loans to cover damages and losses to any crop(s) harvested after December 31, 1986, which was not insured, but could have been insured with Federal Crop Insurance Corporation (FCIC) crop insurance or multi-peril crop insurance, unless the crop(s) could not be planted due to the declared/designated/authorized disaster(s). The Disaster Assistance Act of 1988 suspended this requirement for farmers and ranchers who suffered severe crop production losses due to drought and other natural disasters in 1988, and who otherwise qualified for emergency loan assistance due to crop production losses in 1988. The Disaster Assistance Act of 1989 again suspends this requirement for crop production losses in 1989. These Acts waive this requirement only for crops planted for harvest in 1988 and 1989.

While the 1989 Act provides for the waiver of crop insurance for the 1989 crop year, it requires that eligible applicants must agree to purchase multi-peril crop insurance for the 1990 crop or commodity which suffered disaster losses due to natural disasters in 1988 or 1989, and for which the EM loan is sought. However, if any of the following conditions exist, the applicant will not be required to obtain 1990 crop insurance:

(1) Crop insurance is not available for the crop for which the loan is sought. (This means that crop insurance must have been applied for during the open season for the crop(s) in question, and

not that it was unavailable at the time of application for the EM loan).

(2) The applicant's annual premium rate for the crop insurance will be more than 25 percent greater than the average premium rate charged for insurance on the 1989 crop in the county where the applicant's farming operation is located:

(3) The annual premium for such crop insurance is greater than 25 percent of the amount of the EM loan sought.

(4) The applicant's 1989 production loss, with respect to the crop(s)/commodity(ies) for which the EM loan is made, does not exceed 65 percent.

(5) The applicant can establish, by appeal to the FmHA County Committee, that the purchase or crop insurance would impose an undue financial hardship, and that a waiver of the requirement to obtain crop insurance should be granted by the County Committee.

The crop insurance requirement on the new crop, along with the existence of any of the conditions to waive it, was also addressed under the Disaster Assistance Act of 1988, but this requirement has been superseded by the 1989 Act.

The law also requires FmHA to provide guaranteed operating loans, through September 30, 1990, to farmers and ranchers who are eligible for Agricultural Stabilization and Conservation Service (ASCS) disaster program payments under subtitle A of title 1 of the Disaster Assistance Act, and who meet the existing eligibility requirements for a guaranteed operating loan. Such guaranteed loans may be made to refinance and reamortize 1989 annual operating credit, and/or 1989 and/or 1990 annual installments due and payable on real estate and chattel debt, to applicants who are unable to make payments as a result of losses caused by excess moisture, freeze, storm, or related condition occurring in 1989, or drought or related condition occurring in 1988 or 1989. The borrower's account(s) with such lender must have been current prior to 1989; the lender must allow the borrower to repay such refinanced loans and installments over a period of up to six years from the original due date of the loan(s) or the installment(s) refinanced; and the borrower must otherwise meet the criteria established for guaranteed operating loan borrowers, as prescribed in subtitle B of the CONACT.

Additionally, the law requires FmHA to provide guaranteed operating loans, through September 30, 1990, to farmers and ranchers who have incurred major losses due to excess moisture, freeze, storm, or related condition occurring in 1989, or drought or related condition

occurring in 1988 or 1989, and who cannot pay their 1989 operating debt and/or 1990 installments due on other farm debt. Guarantees under subtitle B of the CONACT would be available to borrowers who prove production losses of sufficient quantity to qualify for ASCS disaster program benefits.

The requirements for guaranteed loan assistance addressed under the Disaster Assistance Act of 1989 are similar to those addressed under the Disaster Assistance Act of 1988.

Several minor grammatical and typographical changes have been made for clarification purposes.

#### List of Subjects

##### 7 CFR Part 1945

Agriculture, Disaster assistance.

##### 7 CFR Part 1980

Agriculture, Loan programs—agriculture.

Therefore, chapter XVIII, title 7, Code of Federal Regulations, is amended as follows:

#### PART 1945—EMERGENCY

1. The authority citation for part 1945 continues to read as follows:

Authority: 7 U.S.C. 1989; 5 U.S.C. 301; 7 CFR 2.23; 7 CFR 2.70.

##### Subpart D—Emergency Loan Policies, Procedures and Authorizations

2. Section 1945.167 is amended by revising paragraph (a) to read as follows:

##### § 1945.167 Loan limitations and special provisions.

(a) EM loans are not authorized for losses to crops grown in areas where FCIC crop insurance or multi-peril crop insurance is available. Applicants will not be eligible for EM loans to cover damages and losses to any crop(s) harvested after December 31, 1986, which was not insured, but could have been insured with FCIC crop insurance or multi-peril crop insurance. In such instances, applicants will not qualify for EM loans based on losses to those crops which could have been insured against the losses, unless the crop(s) could not be planted due to the declared/designated/authorized disaster(s). However, as a result of 1988 and 1989 natural disasters, the Disaster Assistance Acts of 1988 and 1989 provide for the waiver of this mandatory crop insurance requirement, but only for crops planted for harvest in 1988 or 1989. Under these waiver provisions, disaster related production losses sustained to



1988 or 1989 crops, planted for harvest in 1988 or 1989, will be counted in the eligibility calculation and the maximum EM loan entitlement determination, regardless of whether or not crop insurance was available to the applicant, or whether or not such insurance was purchased by the applicant. "Planted for harvest in 1988 or 1989" means:

(1) For annual crops, planted for harvest in 1988 or 1989; and

(2) For perennial crops, planted in 1989 or earlier and producing an annual crop for harvest in 1988 or 1989.

3. Section 1945.169 is amended by revising the introductory text of paragraph (n)(5), and by revising paragraphs (n)(5) (ii), (iv) and (v), and (n)(6) to read as follows:

**§ 1945.169 Security requirements.**

(n) \* \* \*

(5) As a result of 1988 and 1989 natural disasters affecting 1988 or 1989 crops, the Disaster Assistance Acts of 1988 and 1989 provide that all recipients of EM loans, based on 1988 or 1989 production losses, must agree to obtain multi-peril crop insurance, under the Federal Crop Insurance Act, for the 1990 crop/commodity which suffered disaster losses in 1988 or 1989, and for which the EM loan is sought. However, applicants shall not be required to obtain crop insurance for a 1990 crop/commodity when any one of the following conditions exists:

(ii) The applicant's annual premium rate for crop insurance will be more than 25 percent greater than the average premium rate charged for insurance on the 1988 or 1989 crop (depending upon which year's losses are claimed) in the county where the applicant's farming operation is located;

(iv) The applicant's 1988 or 1989 production loss, with respect to the crop(s) for which the EM loan is made, does not exceed 65 percent. Calculations for this determination will be performed by ASCS and entered on Form FmHA 1945-29, "ASCS Verification of Farm Acreages, Production and Benefits," in part II, column (b). The ASCS County Office will enter all crops for which an application for disaster assistance has been filed in the disaster year for each farm unit, and enter the percent of loss after each crop listed. Any listed crop that has a loss greater than 65 percent must be insured for 1990, if it is planned to be planted. Any listed crop that does not have a loss greater than 65 percent

will not have an insurance requirement, but EM borrowers should be encouraged to purchase insurance on all crops for which it is available;

(v) The applicant can establish, by appeal to the FmHA County Committee, that the purchase of crop insurance coverage would impose an undue financial hardship, i.e., the premium cost of the required insurance would prevent the applicant from projecting a positive cash flow, and thus disqualify the applicant for EM loan assistance. Each appeal to the County Committee for waiver of purchasing crop insurance for the 1990 crop(s) must be accompanied by a completed "Farm and Home Plan," Form FmHA 431-2, or comparable plan of operation for 1990, signed by the applicant and the County Supervisor. When the County Committee approves the waiver, it will be so stated on the "County Committee Certification or Recommendation," Form FmHA 440-2. If the County Committee denies the waiver, that decision will be documented on Form FmHA 440-2 and the applicant will be given full appeal rights under subpart B of part 1900 of this chapter, "Farmers Home Administration Appeal Procedure."

(6) When an applicant purchases the necessary crop insurance for 1990 as a condition to receiving an EM loan and, after the EM loan is closed, allows the policy(ies) to lapse or cause it (them) to be canceled before completion of the 1990 production year, the borrower will become immediately liable for full repayment of all principal and interest outstanding on any EM loan made under the provisions of title I, subtitle A, section 107(d) of the Disaster Assistance Act of 1989. The loan approval official will insert this requirement in item 41 of Form FmHA 1940-1, "Request for Obligation of Funds," which is signed by the applicant and the FmHA loan approval official.

**PART 1980—GENERAL**

4. The authority citation for part 1980 is revised to read as follows:

Authority: 7 U.S.C. 1989; 42 U.S.C. 1480; 5 U.S.C. 301; 7 CFR 2.23; 7 CFR 2.70.

**Subpart B—Farmer Program Loans**

5. Section 1980.101(a) is amended by revising the last sentence to read as follows:

**§ 1980.101 Introduction.**

\* \* \* Exhibit G contains the policies and procedures modifying the Guaranteed Operating (OL) loan regulations (Loan Note Guarantees Only), as described in § 1980.175 of this

subpart, to incorporate the provisions of Public Law 101-82, the "Disaster Assistance Act of 1989."

6. Exhibit G of subpart B is revised to read as follows:

**Exhibit G of Subpart B—1990 Farm Operating Loans Authorized By The "Disaster Assistance Act of 1989"**

**I. General**

This exhibit contains policies and procedures modifying the guaranteed operating (OL) loan regulations, Loan Note Guarantees Only, as described in § 1980.175 of this subpart, to implement the provisions of Public Law 101-82, the "Disaster Assistance Act of 1989." Subparts A and B of part 1980 are applicable to this program, except as modified by this exhibit. OL loan note guarantee requests from lenders, under this Exhibit, must be approved on or before September 30, 1990.

**II. Introduction**

The authorities contained in this exhibit enable FmHA to guarantee loans made by lenders, as set forth in subparts A and B of part 1980, under subtitle B of the Consolidated Farm and Rural Development Act, as modified by title III, section 302, of the "Disaster Assistance Act of 1989." The purposes of these OL loans include: refinancing and reamortizing 1989 annual operating loans, and/or 1989 and/or 1990 installments that are or will become due and payable during 1989 and/or 1990 on real estate debt (including buildings and storage facilities), farm equipment debt, livestock debt, or other operating debt of farmers and ranchers that otherwise cannot be repaid due to major production losses sustained as a result of drought or related condition occurring in 1988 or 1989, or excess moisture, freeze, storm or related condition occurring in 1989.

**III. Definitions**

A. *Farmer.* A producer of agricultural crops/commodities for sale in the market place. Includes crop farmers, livestock ranchers and producers of livestock products.

B. *Installment.* An amortized payment scheduled under the terms of a promissory note. For loans made as annual crop loans, the total amount due is the installment. For notes with a demand payment feature, refer to paragraph IV C(5) of this Exhibit for clarification of conditions that pertain to refinancing such notes.

C. *Major losses.* Production losses, as defined by ASCS, of sufficient magnitude to qualify a producer for ASCS emergency livestock assistance or disaster program payments.

D. *Operating loan.* A loan made for any authorized annual operating loan purpose, for calendar year 1989, as stated in § 1980.175(c) of subpart B, for which payment cannot be made due to drought or related condition occurring in 1988 or 1989, or excess moisture, freeze, storm or related condition occurring in 1989.



#### IV. Program Administration

Loan guarantee requests will not be approved until a determination is made by the Agricultural Stabilization and Conservation Service (ASCS) that the applicant is eligible for benefits under an ASCS livestock feed program or disaster payment program, or that the borrower incurred major production losses as determined by ASCS, but for other reasons is not eligible for ASCS disaster program benefits. The use of such benefits must be considered first for reducing the applicant's outstanding financial obligations incurred in the disaster year. This is to ensure that loan guarantees are not approved in excess of the farmer's actual financial needs.

**A. Eligibility.** Farmers and ranchers who are determined eligible to receive disaster program benefits from ASCS, based on production losses to any commercial crop grown for harvest in 1989, may receive loans from lenders, guaranteed by FmHA, subject to the eligibility requirements contained in § 1980.175(b) of this subpart, and the following:

(1) Guarantees will be approved only for those farmers unable to make scheduled payments on their 1989 annual operating loans and/or 1989 and/or 1990 scheduled installments on other farm debts, as a result of the conditions stated in paragraph II of this exhibit. If a request is made to refinance an installment not yet due and payable, the projected plan of operation must show that the applicant will be unable to meet the installment when it comes due.

(2) Farmers must otherwise be current with their obligations to the lender making the guaranteed loan, when the guarantee is approved. If a guarantee is approved to refinance installments due more than one creditor, the applicant must be current with all creditors refinanced, when the guarantee is approved.

(3) The lender's guarantee request package, as prescribed in § 1980.113 and Exhibit A of this subpart, will contain a properly executed (signed by an authorized ASCS official) Form CCC 441, "Application for 1989 Disaster Benefits," with attached worksheet, "1989 Disaster System Producer Calculated Payment Report," for each farm. This will establish that the farmer has been determined eligible by ASCS for a disaster program(s) payment(s).

(4) The FmHA County Committee will certify that the applicant meets the requirements contained in § 1980.175(b).

**B. Limitations.** Farmers will not be eligible for loan guarantees under this Exhibit, if their ASCS disaster benefits are only in the form(s) of:

1. Assistance for haying and grazing CRP acreage, as addressed in subtitle D of title I of the Act;
2. Assistance for orchard farmers, under subtitle B of title I of the Act;
3. Emergency livestock assistance, under title II of the Act;
4. Livestock water assistance, under section 502 of title V of the Act; or
5. Forest crop assistance, under subtitle C of title I of the Act.

**C. Loan Purposes.** Eligible loan purposes include any of the following:

1. Refinancing 1989 annual operating loans.
2. Refinancing 1989 loan installments.
3. Refinancing 1990 loan installments.
4. Loans or loan installments to be refinanced must be due or will become due and payable during 1989 or 1990, and must have been incurred for:

- (a) real estate debt (including buildings and storage facilities);
- (b) farm equipment debt;
- (c) livestock debt; or
- (d) other operating debt.

5. When a creditor or lender requests refinancing of a promissory note that contains a demand payment feature, and the debt was incurred for more than one purpose, e.g., operating expenses, machinery and/or equipment purchase, debt carryover, and other capital expenditures, only the annual operating expense portion, plus an amount equivalent to an annual installment(s) for each of the other purposes, can be included in the guaranteed loan.

**D. Terms.** 1989 annual operating loans and/or 1989 and/or 1990 installments refinanced will be scheduled for repayment on terms that will provide the borrower a reasonable opportunity to continue to receive new operating credit while repaying the guaranteed loan. When a loan is made to refinance more than one installment with the same creditor, or more than one installment with different creditors, the term of the guaranteed loan will be limited to not more than 6 years from the original due date of any installment being refinanced.

1. This Exhibit does not preclude participation by more than one lender.

2. Different lenders of the same applicant may request separate guarantees when refinancing their installments, provided:

(a) Separate notes are taken and repayment of each note does not exceed 6 years from the original installment due date; and

(b) The security requirements in § 1980.175 (g) and (h) are met, except as stipulated in paragraph IV E of this exhibit.

**E. Security.** Adequate security must exist and be maintained for the proposed debt(s) to be refinanced. A current market value appraisal will be completed in accordance with § 1980.113(d)(9) of this subpart to ensure that sufficient collateral equity exists to fully secure the loan being guaranteed.

1. Section 1980.175(d)(5) of this subpart, which requires separate and identifiable security, will not apply. Junior liens on collateral may be accepted when practical and agreeable with the lender proposing the loan.

2. When a lender requests a guarantee for refinancing its own debt secured by chattels, a new financing statement will be required to implement the requirements of § 1980.109(b) (1) and (2). A lien search will be made to show that the proposed collateral is, in fact, encumbered by the lender; and the subsequent filing will give the intended junior lien position. For these loans, the loan agreement, promissory note, and any new security instruments will include language stating:

(a) The security position of the guaranteed loan being made is junior to the lender's original lien, and

(b) The amount of the prior lien.

3. For real estate installments being refinanced, the best lien obtainable on the real estate serving as collateral for the loan, may be accepted, provided the junior lien position will afford sufficient collateral equity to fully secure the guaranteed loan being made. If the junior lien will not fully secure the new loan, lender must obtain additional collateral having sufficient equity to assure the new guaranteed loan will be fully secured. This will be accomplished by either subordination of an existing lien(s) on the real estate in question or a lien on other real estate having sufficient collateral equity to make up the deficiency in security value.

4. When a single loan is made to refinance more than one creditors' installments, the best lien obtainable may be taken, as a minimum, on the same items of collateral that serve as security for the loan installments being refinanced, provided the sum of the liens against the collateral does not exceed the present market value of the collateral.

**F. Servicing.** 1. Servicing of loans made under this Exhibit will be in accordance with § 1980.130 of this subpart, paragraph IX of form FmHA 449-35, "Lender's Agreement," and paragraph VII of exhibit A, attachment 1, "Approved Lender Program, Lender's Agreement."

2. If it becomes necessary for the lender to make a protective advance to protect or preserve the collateral, or if liquidation becomes necessary, the lender will determine whether a substantial recovery can be made.

**G. Appeals.** Adverse decisions by FmHA officials will be processed in accordance with subpart A of part 1980 and subpart B of part 1900 of this chapter.

Dated October 24, 1989.

Neal Sox Johnson,  
Acting Administrator, Farmers Home  
Administration.

[FR Doc. 89-27447 Filed 11-21-89; 8:45 am]

BILLING CODE 3410-07-M

## DEPARTMENT OF JUSTICE

### Immigration and Naturalization Service

#### 8 CFR Parts 103 and 299

[INS No. 1254-89]

RIN 1115-AB11

### Immigration and Naturalization Service and Executive Office for Immigration Review; Fee Review

**AGENCY:** Immigration and Naturalization Service, Justice.

**ACTION:** Interim rule with request for comments.

**SUMMARY:** This interim rule amends the fee schedule of the Immigration and Naturalization Service and the Executive Office for Immigration Review by charging a new fee for Form



I-765, Application for Employment. This change is necessary to place the financial burden of providing this special service and benefit which does not accrue to the general public at large on the recipients of this special service and benefit. The \$35.00 fee reflects the current recovery cost of providing this special service and benefit, taking into account public policy and other pertinent facts.

**DATES:** This rule is effective November 22, 1989. Comments must be received on or before December 22, 1989.

**ADDRESS:** Please submit written comments, in triplicate, to Director, Policy Directives and Instructions, Immigration and Naturalization Service, room 2011, 425 I Street, NW., Washington, DC 20536.

**FOR FURTHER INFORMATION CONTACT:** Charles S. Thomason, Systems Accountant, Finance Branch, Immigration and Naturalization Service, 425 I Street, NW., Washington, DC 20536, telephone: (202) 633-4705. Gerald S. Hurwitz, Counsel to the Director, Executive Office for Immigration Review, 5203 Leesburg Pike, Falls Church, VA 22041, Telephone: (703) 756-6470.

**SUPPLEMENTARY INFORMATION:** The Department of Justice published in the Federal Register on June 20, 1989, at 54 FR 25912 a draft of the I-765 and the following information about the form itself:

- (1) The title of the form;
  - (2) The agency form number and the applicable component of the Department sponsoring the collection;
  - (3) How often the form must be filled out or the information is collected;
  - (4) Who will be asked or required to respond as well as a brief abstract;
  - (5) An estimate of the total number of respondents and the amount of estimated time it takes each respondent to respond;
  - (6) An estimate of the total public burden hours associated with the collection; and
  - (7) An indication as to whether section 3504(h) of Pub. L. 96-511 applies.
- Upon a review of comments received, the Form, which included a \$35.00 filing fee, was approved by the Office of Management and Budget on August 21, 1989. Therefore, the following new fee is in effect.

1. A fee for filing form I-765, Permission for Non-immigrant Employment, in the amount of \$35.00.
- The reason for this procedure is to promptly make a change while allowing time for the Service to consider suggested changes and public comment.

In accordance with 5 U.S.C. 605(b), the Attorney General certifies that this rule will not have a significant economic impact on a substantial number of small entities.

This rule would not be a major rule within the meaning of section 1(b) of E.O. 12291, nor does this rule have federalism implications warranting the preparation of a Federal Assessment in accordance with E.O. 12612. The information collection requirement contained in this rule has been cleared by the Office of Management and Budget under the provisions of the Paperwork Reduction Act under OMB Control number 1115-0163.

#### List of Subjects in 8 CFR Part 103

Administrative practice and procedures, Archives and records, Authority delegation, Fees, Forms.

Accordingly, chapter I of title 8 of the Code of Federal Regulations is amended to read as follows:

#### PART 103—POWERS AND DUTIES OF SERVICE OFFICERS: AVAILABILITY OF SERVICE RECORDS

1. The authority citation for part 103 of title 8 continues to read as follows:

Authority: 5 U.S.C. 522(a); 8 U.S.C. 1101, 1103, 1201, 1301-1305, 1351, 1443, 1454, 1455; 28 U.S.C. 1746; 7 U.S.C. 2243; 31 U.S.C. 9701; E.O. 12356, 3 CFR, 1982 Comp., p. 166; 8 CFR part 2.

2. In § 103.7, paragraph (b)(1) is amended by adding in numerical order:

#### § 103.7 [Amended]

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

Form I-765. For filing application for employment authorization pursuant to 8 CFR 274a.13. Applicants must pay a fee of thirty-five (\$35.00) dollars to be remitted in the form of cash, check, or money order.

\* \* \* \* \*

#### PART 299—[AMENDED]

3. The authority citation for part 299 of title 8 continues to read as follows:

Authority: 8 U.S.C. 1101, 1103, 8 CFR part 2.

4. Section 299.1, Prescribed forms, is amended by adding in numerical order:

#### § 299.1 [Amended]

\* \* \* \* \*

#### Form No., Title and Description

Form I-765 (8-24-89)—Application for Employment Authorization.

\* \* \* \* \*

5. Section 299.5, Display of Control Numbers, is amended by adding in numerical order:

#### § 299.5 [Amended]

\* \* \* \* \*

INS form No.	INS form title	Currently assigned OMB control No.
I-765	Application for Employment Authorization.	1115-0163

Dated: November 16, 1989.

Gene McNary,

Commissioner.

[FR Doc. 89-27535 Filed 11-21-89; 8:45 am]

BILLING CODE 4410-01-M

#### NATIONAL CREDIT UNION ADMINISTRATION

#### 12 CFR Parts 700, 702 and 741

#### Definitions; Reserves; Full and Fair Disclosure

**AGENCY:** National Credit Union Administration (NCUA).

**ACTION:** Final rule.

**SUMMARY:** The NCUA Board (Board) requested comments in October 1987 (52 FR 38771, October 19, 1987), on proposed changes to NCUA Rules and Regulations defining the "loans and risk assets" that determine Federal credit union and federally insured state credit union reserve requirements. This initial comment period produced approximately 300 comments.

After review of the comments, the Board determined, at its April 14, 1988, meeting that a review of the statute, regulation and accounting procedures involving reserves, risk assets, and reserve transfers should be made and that NCUA should work with credit unions, state regulatory authorities and credit union organizations to develop a systematic approach to the issue of capital in credit unions. This final rule is a product of that process and an analysis of comments received from the credit union industry. The amendments to the rule are as follows:

- (1) Investments with remaining maturities in excess of 3 years are included in the definition of risk assets, except for those identified as exclusions
- (2) The Allowance for Investment Losses is included with the Regular Reserve, and Allowance for Loan Losses



when determining the minimum amount of gross income to be transferred to the Regular Reserve.

(3) Each Federal credit union board of directors is authorized to charge the Regular Reserve for investment losses, without regional director approval, as long as the capital ratio is above 6 percent prior to the charge and the amount of the charge reduces the ratio by no more than 1/2 percent. Federally insured state-chartered credit unions are also authorized to charge the statutory reserves for investment losses provided it meets the same requirements described above for Federal credit unions, is permitted by state law or procedures established by the state regulatory authority, and notifies the appropriate NCUA regional director. Capital is defined as the total of the Regular Reserve, Allowance for Loan Losses, Allowance for Investment Losses, other reserves and Undivided Earnings.

(4) The maintenance of a valuation allowance account for loan and investment losses does not eliminate the requirement for transferring a percentage of gross income to the Regular Reserve account before the payment of each dividend.

**EFFECTIVE DATE:** December 22, 1989.

**ADDRESS:** National Credit Union Administration, 1776 G Street, NW., Washington, DC 20456.

**FOR FURTHER INFORMATION CONTACT:** D. Michael Riley, Director, Office of Examination and Insurance or Nicholas Veghts, Deputy Director, Office of Examination and Insurance at the above address or telephone (202) 682-9640.

**SUPPLEMENTARY INFORMATION:**

**Background:**

Pursuant to section 116 of the Federal Credit Union Act (12 U.S.C. 1762), credit unions must set aside a certain percentage of their gross income for each accounting period as reserves, until the total reserve reaches a prescribed percentage of "risk assets". This is the primary method by which credit unions build capital. The statutory reserve requirement for each credit union, as established by section 116, is 6 or 10 percent of risk assets depending on the size of the credit union and the length of time it has been in operation. Section 700.1(j) of the NCUA Rules and Regulations (12 CFR 700.1(j)) defines risk assets by listing those assets which are not included. Presently, the definition of risk assets is essentially limited to loans to members.

The nature of credit union's balance sheet has changed dramatically since the reserve procedures (and risk asset

definition) were established. At that time, member loans made up almost all of a credit union's assets and thus, the credit union made reserve transfers on what were essentially total assets. At present, a significant part of most credit unions' balance sheets consists of assets excluded for the definition of risk assets and therefore, excluded from those assets that determine minimum statutory reserve goals. Events of recent years have shown, however, that substantial losses can occur on these assets.

Accordingly, the NCUA Board made the decision to review the issues involving risk assets and reserve requirements. The Board's objective was to ensure consistency between credit union reserves against losses and the risk inherent in the present asset structure of credit unions. NCUA's first formal request for public comment on this issue in October 1987 (52 FR 38771, October 19, 1987) elicited comments that made four general points:

- The definition of risk assets could be improved, particularly in the area of long-term assets;
- No change should be made to the definition that would adversely affect credit unions;
- Credit unions involved with riskier undertakings should be required to reserve at a higher rate; and
- The statute and regulation need improvement.

A review of these comments indicated to the NCUA Board that the issue needed further review and in April 1988, the Board determined that a review should be made of the statute, regulations and accounting procedures involving reserves, risk assets and reserve transfers. The Board directed NCUA staff to work with the credit union industry to develop a systematic, cohesive approach to the broad issue of the capital position of credit unions.

Immediately after this decision, a Credit Union Reserves Study Commission was formed by the credit union trade organizations. NCUA staff members and state regulators participated in the work of the Commission on an advisory basis. The Commission published its findings in February 1989 and made two major recommendations: First, that the credit union movement should seek legislative and regulatory changes to replace the current system of required transfers to regular reserves with a system of required net capital contributions and second, that regulatory agencies consider several changes to strengthen the current required reserve transfer system.

The Board then issued proposed regulatory amendments in May of 1989 (54 FR 21961, May 22, 1989). A summary of the major aspects of the proposed rule follows.

The proposed amendment added the following assets that will be included in the definition of risk assets:

- (1) Fixed assets in excess of 5 percent of total shares and retained earnings; and
- (2) Investments with a remaining maturity in excess of 3 years unless they are carried at the lower of cost or market, or are marked to market value monthly.

In addition, the proposal includes the Allowance for Investment Losses with the Allowance for Loan Losses and Regular Reserve in determining the minimum reserve transfer and stated that charges to the Regular Reserve for losses other than loan losses must be approved by the regional director when certain conditions exist. When these same conditions exist, federally insured state-chartered credit unions can charge the Regular Reserve for losses other than loan losses, but only after the appropriate NCUA regional director has been notified. It was also proposed to add a provision that the maintenance of a valuation allowance for investments and other losses does not eliminate the requirement for a reserve transfer before dividends can be paid.

**Public Comment**

Seventy-seven comments were received on the proposed amendments. Sixty-nine comments were from federal and federally insured state-chartered credit unions. Ten comments were from credit union leagues and trade associations. Comments were also received from a federal agency, a national savings and loan trade organization, a law firm, and a broker. Two comments were from individuals.

The comments were generally in favor of the proposed changes to the regulation. Four major changes recommended by the commenters were:

- (1) That the credit union board of directors be authorized to charge the regular reserve for investment losses;
- (2) That the state supervisory authority be the approving entity in the case of federally insured state-chartered credit unions requiring a waiver for the purpose of charging reserves;
- (3) That fixed assets in excess of 5 percent not be included in the definition of risk assets; and
- (4) That special consideration be given to credit unions that experience undue hardship caused by implementation of the new regulation.



**Explanation of Final Rule and Changes****Section 700.1(k) Definitions****Fixed Assets**

Thirty-eight comments were received on the proposal to include as a risk asset the ownership of fixed assets in excess of 5 percent of total shares and retained earnings as defined by § 701.36 of the NCUA Rules and Regulations. Fourteen commenters approved of the proposal, while twenty-two commenters objected in some degree. Sixteen commenters objected altogether to the inclusion of fixed assets in excess of 5 percent, arguing that § 701.36 of the NCUA regulations already requires a credit union to obtain approval of investments to be made in excess of 5 percent of total shares and retained earnings. This allows NCUA to restrict a credit union from investing at a level of undue risk. The Board agrees, and accordingly, fixed assets in excess of 5 percent of total assets are not included in the definition of risk assets in the final rule.

**Investments**

Fifty-six commenters addressed the inclusion in risk assets of investments with a remaining maturity over 3 years that are not carried at the lower of cost or market, or are not marked to market on a monthly basis. Eight commenters expressed approval of the proposed changes because the current definition of risk assets does not accurately reflect the risk of long-term, non-loan assets. Nineteen commenters expressed total objection. Their reasons varied. Several commenters noted that the risks involved in long-term investments were interest rate related and that there was little or no risk to the principal value of the investment.

Eight commenters recommended that the maturity on long-term investments to be included in the risk asset definition be extended to 5 years or more, arguing that an investment of 5 years poses no more risk than a 3-year investment and that investments in the 10- to 30-year maturity range are where problems arise. Others stated that extending the maturity is desirable in order to avoid unnecessarily restricting capable credit unions with strong capital positions.

Eleven comments were received regarding the exclusion of investments that are carried at the lower of cost or market, or those that are marked to market value monthly. Five commenters agreed, noting the risk associated with this type of investment is eliminated at the end of the accounting period by bringing the security to market value. Several commenters stated that marking to market only recognized past loss and

that to adequately reflect the risk of future loss, a reserve transfer based on the amount invested was needed.

The Board has decided to adopt its original proposal, i.e., to include as risk assets, investments with remaining maturities greater than 3 years that are not carried at the lower of cost or market or are not marked to market value monthly. The risks involved in investments with maturities greater than 3 years are recognized as twofold. First, interest rate risk can cause loss of income to a credit union when the instrument cannot be repriced. Second, market risk can cause the loss of principal value due to market fluctuations or by the sale of the instrument. The maturity length at which an investment becomes most vulnerable is dependent upon the market and the credit union's asset structure at any given point in time. Selection of the 3-year cut off in the definition of a long-term investment will provide for conservative reserving requirements.

**Other Issues**

One commenter noted that the proposed rule did not exempt investments in Federal Home Loan Mortgage Corporation securities with maturities of less than 3 years. Also, the deposit in the NCUSIF was not listed as being exempt from the definition of risk assets. These were oversights and have been corrected in the final rule.

Five comments were received on the inclusion of student loans in the definition of risk assets. The commenters argued that student loans should not be included since they are guaranteed by the U.S. Government. The commenters further suggested that additional reserve requirements would adversely affect credit union involvement in the student loan program. Student loans maturing in excess of 3 years will remain in the definition of risk assets. The risks associated with these loans are comparable to those of other long-term investments.

**Section 702.2 Regular Reserve**

Twenty-four comments were received regarding the proposal that credit unions obtain regional director approval prior to charging the Regular Reserve for investment losses. Thirteen commenters expressed opposition to this proposal. The commenters made two basic arguments. First, many believe that this provision infringes on the responsibilities of the credit union's board of directors. Second, because credit unions are adequately reserving for loan losses and responsibly exercising their authority to charge-off

these losses without advance approval, they believe it is reasonable and prudent to allow credit unions to charge off investment losses in the same manner.

Six commenters specifically mentioned that in the case of federally insured state-chartered credit unions approval to charge off investments should come from the state regulator and not the regional director. Commenters expressed concern that the proposed rule does not take into account the different definitions of risk assets and permissible investments allowed by the various states. Other commenters stated that requiring the NCUA's regional director's approval for federally insured state-chartered credit unions infringes upon states' rights and is detrimental to the dual chartering system.

After review of these comments, the final rule has been revised in two aspects: First, the regional directors approval is not required on all investment losses charged to the Regular Reserve. Instead, a capital reduction limit and a minimum capital level are established for the purpose of determining prior approval from the regional director. Specifically, the credit union's board of directors will be authorized to charge investment losses without prior regional director approval if the credit union's capital ratio is above 6 percent and the charge will reduce the ratio by no more than 1/2 percent, and the board of directors authorization states the amount, cause and need for the charge. Second, the state supervisory authority will, if required by law or established procedures, make the final decision on those state-chartered credit unions requiring prior approval. The credit union will be required, however, to notify the appropriate regional director prior to the charge being made. The requirements and procedures for federally insured state-chartered credit unions are stated in § 741.7.

Seven commenters addressed the proposal that the Allowance for Investment Losses be included with the Allowance for Loan Losses and Regular Reserve in determining the applicable percentage of gross income to be transferred to the Regular Reserve. Four commenters were in favor of the proposal. Three commenters expressed disagreement with the proposal. In addition, several commenters requested clarification concerning the accounting for the Allowance for Investment Losses. The Allowance for Investment Losses will be funded through the Provision for Investment Loss expense



account which is in accordance with Generally Accepted Accounting Principles.

#### Section 702.3 Full and Fair Disclosure

Five commenters expressed an opinion on the addition to the full and fair disclosure section providing that the maintenance of a valuation allowance for investments and other losses does not eliminate the requirement for transferring a percentage of gross income before the payment of each dividend. Two commenters support the provision as proposed. Three commenters disagree with this provision, stating that the current regulation is adequate.

To provide for consistency within the reserving requirements and to clarify the inclusion of the Allowance for Investment Losses in the calculation of the total Regular Reserve, § 702.3(c)(1) has been revised to provide that the maintenance of the valuation allowance for loan losses and investment and other losses does not eliminate the requirement for transferring a percentage of gross income before the payment of each dividend to the Regular Reserve as required by section 116 of the Federal Credit Union Act.

#### Special Considerations

There were many comments made that recommended that special consideration be given to those credit unions who will be severely affected by these new reserving requirements. Special consideration will be given on a case-by-case basis by formal appeal to the appropriate regional director. The appealing credit union should provide a letter requesting special consideration, along with supporting documentation to justify the request.

#### Calculation for Reserve Transfer Requirements

To determine what the credit union's total statutory reserves are, the following calculation will be required:

ADD: The balances in the Regular Reserve, the Allowance for Loan Losses, and the Allowance for Investment Losses accounts together to determine "Total Regular Reserves".

Refer to section 116 of the Federal Credit Union Act for the percentage of risk assets applicable to your credit union. The Accounting Manual for Federal Credit Unions provides examples of the calculation of the amount of gross income to be transferred to the Regular Reserve.

#### Regulatory Procedures

##### Regulatory Flexibility Act

The NCUA Board has determined and certified that the final rule will not have a significant economic impact on a substantial number of small credit unions (primarily those under \$1 million in assets). Accordingly the NCUA Board has determined that a Regulatory Flexibility Analysis is not required.

##### Paperwork Reduction Act

This rule makes no additional collection requirements; therefore, it need not be sent to the Office of Management and Budget for approval.

##### Executive Order 12612

The NCUA Board has considered the fact that this final rule will affect federally insured state-chartered credit unions (FISCUs) in the determination of transfers to reserves. It does not impose any additional cost or burden on the states, nor does it affect the states' ability to discharge traditional state government functions. The benefits provided and protection afforded by the NCUSIF are the same for FISCUs as for Federal credit unions. It is protection afforded through a federal system and the responsibility for administering that system lies with the NCUA Board. All federally insured credit unions should be subject to the same minimum reserve requirements.

#### List of Subjects

##### 12 CFR Part 700

Credit unions; Risk assets; Reserve requirements

##### 12 CFR Part 702

Credit unions; Regular Reserve charges; Full and fair disclosure

##### 12 CFR Part 741

Credit unions; Reserve requirements

By the National Credit Union Administration Board on November 13, 1989.  
Becky Baker,

Secretary of the Board.

Accordingly, NCUA amends its regulations as follows:

#### PART 700—DEFINITIONS

1. The authority citation for part 700 continues to read as follows:

Authority: 12 U.S.C. 1752(5), 1757(6), and 1766.

##### § 700.1 [Amended]

2. Section 700.1 is amended as follows:

a. Current § 700.1(k) is redesignated as § 700.1(l) and current § 700.1(j) is redesignated as § 700.1(k).

b. The following definition is added as § 700.1(j):

(j) "Remaining maturity" is the time period from the date of the required reserve transfer to the stated date of maturity of the instrument.

c. Section 700.1(k) is revised as follows:

(k) For the purposes of establishing the reserves required by Section 116 of the Federal Credit Union Act, all assets except the following shall be considered risk assets:

- (1) Cash on hand.
- (2) Deposits and/or shares in federally or state insured banks, savings and loan associations, and credit unions that have a remaining maturity of 3 years or less.
- (3) Assets that have a remaining maturity of 3 years or less and are insured by, fully guaranteed as to principal and interest by, or due from the U.S. Government, its agencies, the Federal National Mortgage Association, Federal Home Mortgage Loan Corporation or the Government National Mortgage Association. Collateralized mortgage obligations that are comprised of government guaranteed mortgage loans shall be included in this asset category.

(4) Loans to other credit unions that have a remaining maturity of 3 years or less.

(5) Student loans insured under the provisions of title IV, part B of the Higher Education Act of 1965 (20 U.S.C. 1071, *et seq.*) or similar state insurance programs that have a remaining maturity of 3 years or less.

(6) Loans that have a remaining maturity of 3 years or less and are fully insured or guaranteed by the Federal or a state government or any agency of either.

(7) Shares or deposits in a central or corporate credit union that have a remaining maturity of 3 years or less. For purposes of defining risk assets a central or corporate credit union is defined as a credit union whose membership primarily consists of:

- (i) Other credit unions organized under state or federal law.
- (ii) Officials, committee members, and employees of any credit union organized under state or Federal law, or
- (iii) Any combination of the categories described in paragraphs (k)(7) (i) and (ii) of this section.

(8) Common trust investments, including mutual funds, which deal exclusively in investments authorized



by the Federal Credit Union Act that are either carried at the lower cost or market, or are marked to market value monthly.

(9) Prepaid expenses.

(10) Accrued interest on non-risk investments.

(11) Loans fully secured by a pledge of shares in the lending Federal credit union, equal to and maintained to at least the amount of the loan outstanding.

(12) Loans which are purchased from liquidating credit unions and guaranteed by the National Credit Union Administration.

(13) National Credit Union Share Insurance Fund Guaranty Accounts established with the authorization of the National Credit Union Administration under the authority of section 208(a)(1) of the Federal Credit Union Act.

(14) Investments in shares of the National Credit Union Administration Central Liquidity Facility.

(15) Investments in numbered items 2, 3, 4, 5, 6, and 7, with maturities greater than 3 years are exempt from risk assets if the investment is being carried on the credit union's records at the lower of cost or market, or are being marked to market value monthly.

(16) Fixed Assets as defined in § 701.36(b).

(17) Deposit in the National Credit Union Share Insurance Fund representing a federally insured credit union's capitalization account balance of one percent of insured shares.

## PART 702—RESERVES

1. The authority citation for part 702 is revised to read as follows:

Authority: 12 U.S.C. 1762 and 1766.

2. Section 702 is revised to read as follows:

### § 702.2 Regular reserve.

(a) Each federal credit union shall establish and maintain a Regular Reserve, as provided by section 116 of the Federal Credit Union Act. The totals of the Regular Reserve, the Allowance for Loan Losses Account, and the Allowance for Investment Losses shall be combined for determining the applicable percentage of gross income to be transferred to the Regular Reserve.

(b) Charges to the Regular Reserve for loan losses shall be made in accordance with full and fair disclosure and as set forth in the Accounting Manual for Federal Credit Unions.

(c) Charges to the Regular Reserve for losses other than loan losses shall also be subject to the following conditions:

(1) Charges for losses other than loan losses may be made pursuant to

authorization of the board of directors if the credit union's ratio of capital to assets is greater than 6 percent and the charge reduces the ratio by no more than ½ percent. The board of directors' authorization shall state the amount of and an explanation of the need for the charge. For the purposes of this section, capital is defined as the total of the Regular Reserve, the Allowance for Loan Losses, the Allowance for Investment Losses, Undivided Earnings, and other reserves.

(2) Charges for losses other than loan losses that do not meet the conditions of paragraph (c)(1) of this section must receive the written approval of the regional director for Federal credit unions.

(d) The Board may decrease the reserve requirements as set forth in section 116 of the Act when, in its opinion, such decrease is necessary or desirable.

### § 702.3 [Amended]

3. Section 702.3(c) is revised to read as follows:

(c)(1) The maintenance of a valuation allowance for loan losses and investment or other losses shall not eliminate the requirement for transferring a percentage of gross income before the payment of each dividend to the regular reserve as required by section 116 of the Federal Credit Union Act.

## PART 741—[AMENDED]

1. The authority citation for part 741 is revised to read as follows:

Authority: 12 U.S.C. 1757, 1766(a) and 1781-1790; Pub. L. 101-73.

2. Section 741.7(a) is revised to read as follows:

### § 741.7 Criteria.

(a) *Adequacy of Reserves.*—(1) *General Rule.* State-chartered credit unions must meet, at a minimum, the statutory reserve and full and fair disclosure requirements imposed on federal credit unions by section 116 of the Federal Credit Union Act and part 702 of the NCUA Rules and Regulations.

(2) *Charges against reserves.* State-chartered credit unions may charge losses, including losses other than loan losses, against the statutory reserve in accordance with either state law or procedures established by the state supervisory authority. However, charges for losses other than loan losses shall be made only after notification to the NCUA regional director, unless the

credit union's ratio of capital to assets is greater than 6 percent and the charge reduces the ratio by no more than ½ percent. For purposes of this section capital is defined as the total of the Regular Reserve, the Allowance for Loan Losses, the Allowance for Investment Losses, Undivided Earnings, and other reserves.

(3) *Special reserve for nonconforming investments.* State-chartered credit unions are required to establish an additional special reserve for investments if those credit unions are permitted by their respective state laws to make investments beyond those authorized in the Federal Credit Union Act or the Rules and Regulations.

[FR Doc. 89-27241 Filed 11-21-89; 8:45 am]

BILLING CODE 7535-01-M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 71

[Airspace Docket No. 88-AEA-12]

#### Alteration of Control Zone; Newburgh, NY

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

**SUMMARY:** This notice amends the operating hours of the Newburgh, NY Control Zone. In addition, a minor change to the geographical coordinates of the Stewart Airport, Newburgh, NY, upon which the control zone is based, is made. This action establishes the operating hours of the control zone from part time to full time operation. In addition, this action changes the coordinates of the airport to reflect the actual geographic position of the airport. This is necessary due to the establishment of full time operation of the control tower and the availability of weather reporting at the airport on a continuous basis.

**EFFECTIVE DATE:** 0901 u.t.c. January 11, 1990.

**FOR FURTHER INFORMATION CONTACT:** Mr. Curtis L. Brewington, Airspace Specialist, System Management Branch, AEA-530, Federal Aviation Administration, Fitzgerald Federal Building # 111, John F. Kennedy International Airport, Jamaica, New York 11430; telephone: (718) 917-0857.



**SUPPLEMENTARY INFORMATION:****History**

On July 7, 1989, the FAA proposed to amend part 71 of the Federal Aviation Regulations (14 CFR part 71) to amend the hours of operation of the Newburgh, NY, Control Zone from part time to full time operation (54 FR 31698). In addition, on September 1, 1989, the proposal was amended to include revising the geographic position of the Stewart Airport upon which the control zone is based (54 FR 40125). The actions increase the operating hours of the Newburgh, NY Control Zone and update the geographic position of the Stewart Airport.

Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments referencing this proposal were received. Except for editorial changes, this amendment is the same as that proposed in the notice. Section 71.171 of part 71 of the Federal Aviation Regulations was republished in FAA Handbook 7400.6E, January 3, 1989.

**The Rule**

This amendment to part 71 of the Federal Aviation Regulations amends the operating hours of the Newburgh, NY Control Zone from part time to full time operation. In addition, the coordinates of the Stewart Airport, Newburgh, NY, are being updated to reflect the actual geographic position of the airport upon which the control zone is based.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this regulation: (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 71**

Aviation safety, Control zones.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me, part 71 of the Federal Aviation Regulations (14 CFR part 71) is amended as follows:

**PART 71—DESIGNATION OF FEDERAL AIRWAYS, AREA LOW ROUTES, CONTROLLED AIRSPACE, AND REPORTING POINTS**

1. The authority citation for part 71 continues to read as follows:

**Authority:** 49 U.S.C. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); 14 CFR 11.69.

**§ 71.171 [Amended]**

2. Section 71.171 is amended as follows:

**Newburgh, NY [Amended]**

Delete the last sentence which reads as follows:

"This control zone is effective from 0000-2359 hours, local time, Tuesday through Friday; 0000-2300 hours, local time, Saturday; 0700-2300 hours, local time, Sunday; 0700-2400 hours, local time, Monday"

Change the coordinates of the Stewart Airport, Newburgh, NY to read "lat. 41°30'14" N., long. 74°06'19" W."

Issued in Jamaica, New York, on October 31, 1989.

**Billy E. Commander,**

*Acting Manager, Air Traffic Division.*

[FR Doc. 89-27402 Filed 11-21-89; 8:45 am]

**BILLING CODE 4910-13-M**

**14 CFR Part 73**

[Airspace Docket No. 88-AEA-4]

**Alteration of Restricted Area R-6601, Fort A.P. Hill, VA**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This action enlarges Restricted Area R-6601, Fort A.P. Hill, VA., to accommodate additional Army training requirements, and revises the assigned controlling agency. This action also more accurately reflects the time of designation and revises the using agency.

**EFFECTIVE DATE:** 0901 u.t.c., January 11, 1990.

**FOR FURTHER INFORMATION CONTACT:**

Linda Ullom, Military Operations Branch (ATO-140), Operations Division, Air Traffic Operations Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone: (202) 267-7683.

**SUPPLEMENTARY INFORMATION:****History**

On December 29, 1988, the FAA proposed to amend part 73 of the

Federal Aviation Regulations (14 CFR part 73) to alter the boundaries and change the controlling agency for Restricted Area R-6601, Fort A.P. Hill, VA (53 FR 52725). Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. The Virginia Department of Aviation submitted three comments. The first stated that the restricted area is already located in a major visual flight rules (VFR) north/south corridor. The FAA believes, however, that considering the present location of R-6601 and the relatively small expansion of the area, no adverse impact on north/south VFR traffic flow will result. The second comment concerned a possible negative impact on the Fredericksburg/Shannon Airport. The airport is located 13 miles to the northwest of R-6601. The nondirectional radio beacon approach is not affected and no negative impact is seen if R-6601 is enlarged. The third comment concerned the impact on the site selection process for a new airport in Essex County. The FAA believes that the site selection process would not be impeded by these extensions. No other comments were received. Except for clarification of the time of designation and editorial changes, this amendment is the same as that proposed in the notice. Section 73.66 of part 73 of the Federal Aviation Regulations was republished in Handbook 7400.6E dated January 3, 1989.

**The Rule**

This amendment to part 73 of the Federal Aviation Regulations increases the size of Restricted Area R-6601 by approximately 2 miles to the northeast and about 1/2 mile to the southwest. This enlargement is needed to permit more effective utilization of terrain and installation facilities, and to provide increased training opportunities in establishing mortar and artillery firing positions during advance and retrograde operations. All additional land to be incorporated is owned by Fort A.P. Hill. The controlling agency is changed to Richmond Air Traffic Control Tower. The time of designation is amended to clarify both the actual use of the area and the provisions for activation of R-6601 by Notice to Airmen. The using agency is also changed to reflect the proper organization.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore (1) is not a "major rule" under Executive Order 12291; (2) is



not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### Environmental Analysis

Pursuant to the Department of Transportation "Policies and Procedures for Considering Environmental Impacts" (FAA Order 1050.1D), an environmental impact statement (EIS) has been prepared and placed in the public docket. The EIS dated July 31, 1980, has a supplementing Record of Environmental Consideration, dated July 24, 1989, which certifies that the 1980 EIS is still valid. The proposed expansion of R-6601 will activate additional areas of the previously approved, but unused, airspace.

#### List of Subjects in 14 CFR Part 73

Aviation safety, Restricted areas.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me, part 73 of the Federal Aviation Regulations (14 CFR part 73) is amended, as follows:

#### PART 73—SPECIAL USE AIRSPACE

1. The authority citation for part 73 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510, 1522; Executive Order 10854; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); 14 CFR 11.69.

#### § 73.66 [Amended]

2. Section 73.66 is amended as follows:

#### R-6601 Fort A.P. Hill, VA [Revised]

Boundaries. Beginning at lat. 38°04'37" N., long. 77°18'45" W.; thence along U.S. Highway 301; to lat. 38°09'45" N., long. 77°12'00" W.; thence along U.S. Highway 17; to lat. 38°07'50" N., long. 77°08'30" W.; to lat. 38°05'30" N., long. 77°09'06" W.; to lat. 38°04'40" N., long. 77°10'20" W.; to lat. 38°03'12" N., long. 77°09'35" W.; to lat. 38°02'22" N., long. 77°11'40" W.; to lat. 38°02'30" N., long. 77°14'40" W.; to lat. 38°01'50" N., long. 77°16'08" W.; to lat. 38°02'15" N., long. 77°18'04" W.; to lat. 38°02'40" N., long. 77°19'00" W.; thence to the point of beginning.

Designated altitudes. Surface to 5,000 feet MSL.

Time of Designation. 0700 to 2300 local time daily. Other times when activated by NOTAM at least 48 hours in advance.

Controlling agency. FAA, Richmond ATCT.

Using agency. U.S. Army, Commander, Fort A.P. Hill, VA.

Issued in Washington, DC, on November 15, 1989.

Richard Huff,

Acting Manager, Airspace-Rules and Aeronautical Information Division.

[FR Doc. 89-27403 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 97

[Docket No. 26060; Amdt. No. 1413]

#### Standard Instrument Approach Procedures; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment established, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs) for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, addition of new obstacles, or changes in air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: Effective: An effective date for each SIAP is specified in the amendatory provisions.

Incorporation by reference: Approved by the Director of the Federal Register on December 31, 1980, and reapproved as of January 1, 1982.

ADDRESS: Availability of matters incorporated by reference in the amendment is as follows:

#### For Examination

1. FAA Rules Docket, FAA Headquarters Building, 800 Independence Avenue SW., Washington, DC 20591;

2. The FAA Regional Office of the region in which the affected airport is located; or

3. The Flight Inspection Field Office which originated the SIAP.

#### For Purchase

Individual SIAP copies may be obtained from:

1. FAA Public Inquiry Center (APA-200), FAA Headquarters Building, 800 Independence Avenue SW., Washington, DC 20591; or

2. The FAA Regional Office of the region in which the affected airport is located.

#### By Subscription

Copies of all SIAPs, mailed once every 2 weeks, are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

#### FOR FURTHER INFORMATION CONTACT:

Paul J. Best, Flight Procedures Standards Branch (AFS-420), Technical Programs Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-8277.

SUPPLEMENTARY INFORMATION: This amendment to part 97 of the Federal Aviation Regulations (14 CFR part 97) prescribes new, amended, suspended, or revoked Standard Instrument Approach Procedures (SIAPs). The complete regulatory description of each SIAP is contained in official FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR part 51, and 97.20 of the Federal Aviation Regulations (FARs). The applicable FAA forms are identified as FAA Forms 8260-3, 8260-4, and 8260-5. Materials incorporated by reference are available for examination or purchase as stated above.

The large number of SIAPs, their complex nature, and the need for a special format make their verbatim publication in the *Federal Register* expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, but refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP contained in FAA form document is unnecessary. The provisions of this amendment state the affected CFR (and FAR) sections, with the types and effective dates of the SIAPs. This amendment also identifies the airport, its location, the procedure identification and the amendment number.

This amendment to part 97 is effective on the date of publication and contains separate SIAPs which have compliance dates stated as effective dates based on related changes in the National Airspace System or the application of new or revised criteria. Some SIAP amendments may have been previously issued by the FAA in a National Flight Data Center (FDC) Notice to Airmen (NOTAM) as an emergency action of



immediate flight safety relating directly to published aeronautical charts. The circumstances which created the need for some SIAP amendments may require making them effective in less than 30 days. For the remaining SIAPs, an effective date at least 30 days after publication is provided.

Further, the SIAPs contained in the amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Approach Procedures (TERPs). In developing these SIAPs, the TERPs criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs and safety in air commerce, I find that notice and public procedure before adopting these SIAPs is unnecessary, impracticable, and contrary to the public interest and, where applicable, that good cause exists for making some SIAPs effective in less than 30 days.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### List of Subjects in 14 CFR Part 97

Approaches, Standard instrument, Incorporation by reference.

Issued in Washington, DC on November 10, 1989.

Daniel C. Beaudette,  
Director, Flight Standards Service.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me, part 97 of the Federal Aviation Regulations (14 CFR part 97) is amended by establishing, amending, suspending, or revoking Standard Instrument Approach Procedures, effective at 0901 g.m.t. on the dates specified, as follows:

#### PART 97—[AMENDED]

1. The authority citation for part 97 continues to read as follows:

Authority: 49 U.S.C. 1348, 1354(a), 1421, and 1510; 49 U.S.C. 106(g) (revised Pub. L. 97-449, January 12, 1983; and 14 CFR 11.49(b)(2)).

By amending: § 97.23 VOR, VOR/DME, VOR or TACAN, and VOR/DME or TACAN; § 97.25 LOC, LOC/DME, LDA, LDA/DME, SDF, SDF/DME; § 97.27 NDB, NDB/DME; § 97.29 ILS, ILS/DME, ISMLS, MLS, MLS/DME, MLS/RNAV; § 97.31 RADAR SIAPs; § 97.33 RNAV SIAPs; and § 97.35 COPTER SIAPs, identified as follows:

#### Effective January 11, 1990

Audubon, IA—Audubon County, NDB RWY 32, Amdt. 3  
Cedar Rapids, IA—Cedar Rapids Muni, RNAV RWY 13, Amdt. 8  
Coldwater, MI—Branch County Memorial, VOR RWY 6, Amdt. 3  
Coldwater, MI—Branch County Memorial, VOR/DME RWY 24, Amdt. 3  
Fremont, MI—Fremont Muni, VOR RWY 38, Amdt. 6  
Fremont, MI—Fremont Muni, VOR-A, Amdt. 10  
Camdenton, MO—Camdenton Memorial, VOR-A, Amdt. 2  
Lewiston, MT—Lewiston Muni, VOR RWY 7, Amdt. 13  
Imperial, NE—Imperial Muni, NDB RWY 31, Amdt. 1  
Reidsville, NC—Rockingham County NC Shiloh, VOR/DME-A, Amdt. 7  
Reidsville, NC—Rockingham County NC Shiloh, SDF RWY 31, Amdt. 2  
Reidsville, NC—Rockingham County NC Shiloh, NDB RWY 31, Amdt. 3  
Reidsville, NC—Rockingham County NC Shiloh, RNAV RWY 31, Amdt. 3  
Marion, OH—Marion Muni, VOR RWY 24, Amdt. 5, Cancelled  
Marion, OH—Marion Muni, VOR-A, Orig.  
Marion, OH—Marion Muni, NDB RWY 12, Amdt. 4  
Klamath Falls, OR—Klamath Falls International, VOR/DME or TACAN RWY 32, Amdt. 3  
Sparta, TN—Sparta-White County, SDF RWY 4, Amdt. 2  
Sparta, TN—Sparta-White County, NDB RWY 4, Amdt. 2  
Milwaukee, WI—Lawrence J. Timmerman, VOR RWY 4L, Amdt. 7  
Milwaukee, WI—Lawrence J. Timmerman, VOR RWY 15L, Amdt. 12  
Milwaukee, WI—Lawrence J. Timmerman, LOC RWY 15L, Amdt. 4

#### Effective December 14, 1989

Dubuque, IA—Dubuque Regional, RNAV RWY 36, Amdt. 4, Cancelled  
Osage Beach, MO—Linn Creek-Grand Glaize Meml, VOR RWY 32, Amdt. 3  
Greenville, NC—Pitt-Greenville, NDB RWY 19, Amdt. 12  
Upper Sandusky, OH—Wyandot County, VOR-A, Amdt. 3  
Aiken, SC—Aiken Muni, NDB RWY 24, Amdt. 8

#### Effective November 7, 1989

Gunnison, CO—Gunnison County, VOR-A, Amdt. 7

#### Effective November 6, 1989

Islip, NY—Long Island Mac Arthur, NDB RWY 6, Amdt. 17

Islip, NY—Long Island Mac Arthur, ILS RWY 6, Amdt. 20

[FR Doc. 89-27404 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-13-M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

#### 21 CFR Part 888

[Docket No. 86P-0426]

### Hip Joint Metal/Ceramic/Polymer Semi-Constrained Cemented or Nonporous Uncemented Prosthesis; Announcement of Reclassification

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is announcing that it has issued an order in the form of a letter to a petitioner reclassifying the hip joint metal/ceramic/polymer semi-constrained cemented or nonporous uncemented prosthesis, and substantially equivalent devices of this generic type, from class III (premarket approval) into class II (performance standards). The order is being codified in the Code of Federal Regulations as specified herein.

**EFFECTIVE DATES:** The reclassification was effective December 5, 1988. The rule becomes effective December 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Joseph M. Sheehan, Center for Devices and Radiological Health (HFZ-84), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-4874.

**SUPPLEMENTARY INFORMATION:** On October 15, 1986, Protek, Inc., submitted to FDA under section 513(f)(2) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 360c(f)(2)) and 21 CFR 860.120, a petition requesting reclassification of the hip joint metal/ceramic/polymer semi-constrained cemented or uncemented prosthesis excluding the ceramic acetabular cup from class III into class II. Consistent with the act and regulations, the agency referred the petition to the Orthopedic and Rehabilitation Devices Panel (the Panel). On October 31, 1986, at an open public meeting, the Panel recommended that FDA reclassify the generic type of device from class III to class II.

On May 27, 1988 (53 FR 19340), FDA published a notice of the Panel recommendation and invited interested persons to submit comments by July 26, 1988. Three comments were submitted.



Summaries of the comments and agency responses were included in the order to the petitioner of December 5, 1988. A copy of the order is available for public examination in the Dockets Management Branch (HFA-305), Food and Drug Administration, Room 4-62, 5600 Fishers Lane, Rockville, MD 20857, under the docket number found in brackets in the heading of this rule.

On December 5, 1988, FDA sent Protek, Inc., a letter (order) reclassifying the hip joint metal/ceramic/polymer semi-constrained cemented or nonporous uncemented prosthesis, and substantially equivalent devices of this generic type, from class III into class II.

Accordingly, as required by 21 CFR 860.134(b)(7) of the regulations, FDA is announcing the reclassification of the generic type of device from class III into class II. In addition, FDA is amending part 888 of title 21 of the Code of Federal Regulations to include the classification of the generic type of device.

After considering the economic consequences of approving this reclassification, FDA certifies that this final rule requires neither a regulatory impact analysis as specified in Executive Order 12291, nor a regulatory flexibility analysis as defined in the Regulatory Flexibility Act (Pub. L. 96-354). Approval of this petition will not have a significant economic impact on a substantial number of small entities. The petitioner and all future manufacturers of substantially equivalent hip joint metal/ceramic/polymer semi-constrained cemented or nonporous uncemented prosthesis devices will be relieved of the costs of complying with the premarket approval requirement in section 515 of the act (21 U.S.C. 360e).

There are no offsetting costs that the petitioner or other manufacturers would incur from reclassification into class II other than those associated with meeting a standard once established. The magnitude of the economic savings attributable to this petition is dependent upon the number of premarket approval studies that the petitioner would have conducted and the number of future competitors satisfying the same requirements. Neither of these parameters can be reliably calculated to permit quantification of the economic savings.

#### List of Subjects in 21 CFR Part 888

Medical devices.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, chapter I of title 21 of the Code of Federal Regulations is amended in part 888 as follows:

#### PART 888—ORTHOPEDIC DEVICES

1. The authority citation for 21 CFR part 888 continues to read as follows:

Authority: Secs. 501, 510, 513, 515, 520, 701 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 351, 360, 360c, 360e, 360j, 371).

2. Section 888.3353 is added to subpart D to read as follows:

**§ 888.3353 Hip joint metal/ceramic/polymer semi-constrained cemented or nonporous uncemented prosthesis.**

(a) *Identification.* A hip joint metal/ceramic/polymer semi-constrained cemented or nonporous uncemented prosthesis is a device intended to be implanted to replace a hip joint. This device limits translation and rotation in one or more planes via the geometry of its articulating surfaces. It has no linkage across-the-joint. The two-part femoral component consists of a femoral stem made of alloys to be fixed in the intramedullary canal of the femur by impaction with or without use of bone cement. The proximal end of the femoral stem is tapered with a surface that ensures positive locking with the spherical ceramic (aluminum oxide, Al<sub>2</sub>O<sub>3</sub>) head of the femoral component. The acetabular component is made of ultra-high molecular weight polyethylene or ultra-high molecular weight polyethylene reinforced with nonporous metal alloys, and used with or without bone cement.

(b) *Classification.* Class II.

Dated: November 3, 1989.

Alan L. Hoeting,

Acting Associate Commissioner for Regulatory Affairs.

[FR Doc. 89-27375 Filed 11-21-89; 8:45 am]

BILLING CODE 4160-01-M

#### DEPARTMENT OF TRANSPORTATION

##### Coast Guard

##### 33 CFR Part 100

[CGD 05-89-5105]

##### Special Local Regulations for Marine Events; Holidays in the City Boat Parade; Town Point, Elizabeth River, Norfolk, VA

AGENCY: Coast Guard, DOT.

ACTION: Notice of implementation of 33 CFR 100.501.

**SUMMARY:** This notice implements 33 CFR 100.501 for the Holiday in the City Boat Parade and Fireworks Display. The event will consist of a boat parade with approximately 75 vessels and a fireworks display at the conclusion of the parade. The regulations in 33 CFR

100.501 are needed to control vessel traffic within the immediate vicinity of the event due to the confined nature of the waterway and the expected congestion at the time of the event. The regulations restrict general navigation in the area for the safety of life and property on the navigable waters during the event.

**EFFECTIVE DATE:** The regulations in 33 CFR 100.501 are effective from 5 p.m. to 9 p.m., November 25, 1989.

**FOR FURTHER INFORMATION CONTACT:** Mr. Stephen Phillips, Chief, Boating Affairs Branch, Boating Safety Division, Fifth Coast Guard District, 431 Crawford Street, Portsmouth, Virginia 23704-5004, (804) 398-6204.

#### Drafting Information

The drafters of this notice are QM1 Kevin R. Connors, project officer, Boating Affairs Branch, Boating Safety Division, Fifth Coast Guard District, and Lieutenant Steven M. Fitten, project attorney, Fifth Coast Guard District Legal Staff.

#### Discussion of Regulation

The Downtown Norfolk Council submitted an application dated September 6, 1989 to hold the Holidays in the City Boat Parade and Fireworks Display. The boat parade will be held in the Elizabeth River in the Town Point area between the Banana Landmass and the Berkley Bridge. The fireworks display will be launched from the Banana Landmass, Town Point Park, Norfolk, Virginia, and will burst over the Elizabeth River. Since many spectator vessels are expected to be in the area to watch the boat parade and fireworks display, the regulations in 33 CFR 100.501 are being implemented for these events. The waterway will be closed during the fireworks display. Since the waterway will not be closed for an extended period, commercial traffic should not be severely disrupted.

In addition to regulating the area for the safety of life and property, this notice of implementation also authorizes the Patrol Commander to regulate the operation of the Berkley drawbridge in accordance with 33 CFR 117.1007, and authorizes spectators to anchor in the special anchorage areas described in 33 CFR 110.72aa. The implementation of 33 CFR 100.501 also implements regulations in 33 CFR 110.72aa and 117.1007. 33 CFR 110.72aa establishes the spectator anchorages in 33 CFR 100.501 as special anchorage areas under Inland Navigation Rule 30, 33 U.S.C. 2030(g). 33 CFR 117.1007 closes the draw of the Berkley Bridge to vessels during and for



one hour before and after the effective period under 33 CFR 100.501, except that the Coast Guard Patrol Commander may order that the draw be opened for commercial vessels.

These regulations are implemented by publication of this implementing notice in the *Federal Register* and a notice in the Local Notice to Mariners.

Dated: November 15, 1989.

P.A. Welling,

Rear Admiral, U.S. Coast Guard Commander,  
Fifth Coast Guard District.

[FR Doc. 89-27431 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-14-M

### 33 CFR Part 100

[OGD 05-89-5104]

#### Special Local Regulations for Marine Events; Sixth Annual Wrightsville Beach Holiday Flotilla; Banks Channel, Motts Channel, Intracoastal Waterway, Wrightsville and Wrightsville Beach, NC

AGENCY: Coast Guard, DOT.

ACTION: Final rule.

**SUMMARY:** Special local regulations are being adopted for the Sixth Annual Wrightsville Beach Holiday Flotilla. The event will be held in a section of Banks Channel between Wrightsville Channel Daybeacon 10 (LLNR 28025) and State Route 76 causeway bridge, in Motts Channel from Wrightsville Channel Daybeacon 14 (LLNR 28040) to Wrightsville Channel Daybeacon 25 (LLNR 28080) and the Intracoastal Waterway from Wrightsville Channel Daybeacon 25 (LLNR 28080) to the State Route 74-76 highway bridge. After the parade a fireworks display will be held within the regulated area. The special local regulations will govern vessel activities during the event. The regulations are necessary to control vessel traffic within the immediate area due to the confined nature of the waterway, and expected spectator craft congestion during the event.

**EFFECTIVE DATE:** These regulations are effective from 4 p.m. to 11 p.m., November 25, 1989. If inclement weather causes the postponement of the event, the regulations are effective from 4 p.m. to 11 p.m., November 26, 1989.

**FOR FURTHER INFORMATION CONTACT:** QM1 Kevin R. Connors, Boating Affairs Branch, Boating Safety Division, Fifth Coast Guard District, 431 Crawford Street, Portsmouth, Virginia 23704-5004 (804) 398-6204.

**SUPPLEMENTARY INFORMATION:** In accordance with 5 U.S.C. 553, a notice of proposed rulemaking has not been

published for these regulations and good cause exists for making them effective less than 30 days from the date of *Federal Register* publication. Adherence to normal rulemaking procedures would not have been possible. Specifically, the sponsor's application to hold the event was not received in this office until October 30, 1989, leaving insufficient time to publish a notice of proposed rulemaking in advance of the event.

#### Drafting Information

The drafters of this notice are QM1 Kevin R. Connors, project officer, Boating Affairs Branch, Fifth Coast Guard District, and Lieutenant Steven M. Fitten, project attorney, Fifth Coast Guard District Legal Staff.

#### Discussion of Regulations

The Greater Wilmington Chamber of Commerce submitted an application on October 20, 1989 to hold the Sixth Annual Wrightsville Beach Holiday Flotilla Boat Parade and Fireworks Display. The boat parade will consist of approximately 50 vessels sailing a course beginning at the State Route 74-76 highway bridge over the Intracoastal Waterway and heading southwest to Wrightsville Channel Daybeacon 25 (LLNR 28080), turning southeast through Motts Channel to Wrightsville Channel Daybeacon 14 (LLNR 28040), turning northeast into Banks Channel to the State Route 76 causeway bridge, turning to the southwest through Banks Channel to Wrightsville Channel Daybeacon 10 (LLNR 28025) and then returning to Wrightsville Channel Daybeacon 25 (LLNR 28080) via Banks Channel and Motts Channel. The fireworks will be launched from an unnamed island west of Wrightsville Channel Daybeacon 14 (LLNR 28040). Any fallout from the fireworks display will be within the regulated area. These regulations are necessary to control spectator craft and to provide for the safety of life and property on navigable waters during the event. Because commercial vessels will be permitted to transit the regulated area between events, commercial traffic should not be severely disrupted.

#### Economic Assessment and Certification

These regulations are not considered major under Executive Order 12291 on Federal Regulation nor significant under Department of Transportation regulatory policies and procedures (44 FR 11034; February 26, 1979). The economic impact is expected to be so minimal that a full regulatory evaluation is unnecessary. Because of this minimal impact, the Coast Guard certifies that these regulations will not have a significant

economic impact on a substantial number of small entities.

#### Federalism Assessment

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that the final rule does not raise sufficient federalism implications to warrant the preparation of a Federalism Assessment.

#### Environmental Impact

This final rule has been thoroughly reviewed by the Coast Guard and has been determined to be categorically excluded from further environmental documentation in accordance with section 2.B.2.c of Commandant Instruction M16475.1B. A Categorical Exclusion Determination statement has been prepared and has been placed in the rulemaking docket.

#### List of Subjects in 33 CFR Part 100

Marine safety, Navigation (water).

#### Final Regulations

In consideration of the foregoing, part 100 of title 33, Code of Federal Regulations is amended as follows:

1. The authority citation for part 100 continues to read as follows:

Authority: 33 U.S.C. 1233; 49 CFR 1.46 and 33 CFR 100.35.

2. A temporary § 100.35-5104 is added to read as follows:

§ 100.35-5104 Intracoastal Waterway, Motts Channel, Banks Channel, Wrightsville and Wrightsville Beach, North Carolina.

(a) *Definitions*—(1) *Regulated area*. The waters of, and adjacent to Banks Channel between Wrightsville Channel Daybeacon 10 (LLNR 28025) located at 34°11'20.0" North, longitude 77°48'48.5" West, and State Route 76 causeway bridge with its center located at 34°12'33.0" North, longitude 77°47'51.0" West, Motts Channel from Wrightsville Channel Daybeacon 14 (LLNR 28040) located at 34°12'18.5" North, longitude 77°48'09.0" West to Wrightsville Channel Daybeacon 25 (LLNR 28080) located at 34°12'51.0" North, longitude 77°48'54.0" West and the Intracoastal Waterway from Wrightsville Channel Daybeacon 25 (LLNR 28080) to the State Route 74-76 highway bridge with its center located at 34°13'05.0" North, longitude 77°48'47.0" West.

(2) *Coast Guard Patrol Commander*. The Coast Guard Patrol Commander is a commissioned, warrant, or petty officer who has been designated by the Commander, Coast Guard Group Fort Macon.



(b) *Special Local Regulations.* (1) Except for persons and vessels authorized by the Coast Guard Patrol Commander, no person or vessel may enter or remain in the regulated area without the permission of the Patrol Commander.

(2) The operator of any vessel in the immediate vicinity of this area shall:

(i) Stop the vessel immediately when directed to do so by any commissioned, warrant, or petty officer on board a vessel displaying a Coast Guard ensign.

(ii) Proceed as directed by any commissioned, warrant or petty officer on board a vessel displaying a Coast Guard ensign.

(3) Any spectator vessel may anchor outside the regulated area specified in paragraph (a)(1) of these regulations, but may not block a navigable channel.

(c) *Effective Period.* These regulations are effective from 4 p.m. to 11 p.m., November 25, 1989. If inclement weather causes the postponement of the event, the regulations are effective from 4 p.m. to 11 p.m., November 26, 1989.

Dated: November 15, 1989.

P.A. Welling,

Rear Admiral, U.S. Coast Guard, Commander, Fifth Coast Guard District.

[FR Doc. 89-27430 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-14-M

## POSTAL SERVICE

### 39 CFR Part 601

#### Procurement Manual; Miscellaneous Amendments

**AGENCY:** Postal Service.

**ACTION:** Final rule.

**SUMMARY:** The Postal Service hereby describes numerous miscellaneous revisions of the Procurement Manual. The revisions are explained below in the Supplementary Information.

**EFFECTIVE DATE:** December 1, 1989.

**FOR FURTHER INFORMATION CONTACT:** Paul D. McGinn, (202) 268-4638.

**SUPPLEMENTARY INFORMATION:** The Procurement Manual, which is incorporated by reference in the Code of Federal Regulations (see 39 CFR 601.100), is amended by the issue of Transmittal Letter 3, dated December 1, 1989. This Transmittal Letter contains numerous substantive and editorial changes, including all revisions made to the Procurement Manual since June 1, 1988, when Transmittal Letter 2 was issued. Accordingly, it picks up all changes published in the Postal Bulletin, and in PM Circulars 89-1 and 89-2,

notices of which were previously published in the Federal Register.

In accordance with 39 CFR 601.105, notice of these changes is hereby published in the Federal Register and the text of the changes is filed with the Director, Office of the Federal Register. Subscribers to the basic manual will receive these amendments from the Postal Service. (For other availability of the Procurement Manual, see 39 CFR 601.104.)

#### Explanation of Changes

#### Chapter 1, Authority, Responsibility and Policy

##### 1.5.2 Contracting Officers

Paragraph c, Selection, Appointment, Recertification, and Termination, Subparagraph 4, Termination, prohibits retroactive termination of a contracting officer's appointment.

##### 1.7.2 Contracts with Postal Service Employees

Paragraph b requires contracting officers to provide a written waiver of the prohibition against contracting with Postal Service employees. Subparagraph b.4 is revised also to show that, in certain circumstances, the APMG, Delivery, Distribution and Transportation Department, must concur in the waiver.

##### 1.9.4 Contractor's Statement of Contingent or Other Fees

This part is changed to require the use of Form 7319, *Contractor's Statement of Contingent or Other Fees*, when applicable.

##### 1.10.2 Document Numbering

Paragraph a, Basic Number, Subparagraph 3: This revision changes the Unauthorized Commitment Code from the symbol "\*" to the number "9".

##### 1.10.4 Commodity Codes

This part corrects the definition of a commodity code and changes the code used for delivery orders and indefinite delivery contracts.

#### Chapter 2, Procurement Planning

##### 2.1.6 Source Selection Plans

Paragraph c, Evaluation Criteria, is revised by deleting the word "numerically" from the first sentence in subparagraph 3.

#### Chapter 3, Sources

##### 3.1.5 Other Government Sources

Paragraph a, Federal Prison Industries, Inc. is revised to show that services may be obtained from Federal Prison Industries, Inc.

##### 3.2.1 Policy (Publicizing Purchase Actions)

Paragraph a is revised as previously published in *Postal Bulletin* 21722, 4/27/89.

##### 3.3.2.e Causes for Debarment

A new subparagraph 3.(c) is added to show that violation of a contract clause concerning the maintenance of a drug-free workplace may be cause for debarment.

Paragraph g, Period of Debarment, is similarly revised.

#### Chapter 4, Purchasing Methods

##### 4.1.3 Receipt of Proposals

Paragraph c, Modification and Withdrawal is revised to correct a conflict between this text and that in Provision A-3, *Modification and Withdrawal of Proposal*.

4.2.6 Delivery Agreements has been added to define and describe their use.

##### 4.3.1 General (Noncompetitive Purchasing)

Paragraph c, Applicability has been revised as previously published in *Postal Bulletin* 21733, 7/13/89.

##### 4.5.6 Protests received by Contracting Officers

Paragraph b is revised to show that a contracting officer may take appropriate action, without the consent of the General Counsel, when the contracting officer determines that a protest is obviously meritorious.

#### Chapter 5, Contract Pricing

##### 5.1.10 Multiyear Contracts

Paragraph c is deleted to eliminate confusion and the implication that a one-year contract with options is a multiyear contract.

#### Chapter 6, Contract Administration

##### 6.4.3 Payment

Changes are made throughout Paragraphs c, Payment of Interest, and d, Calculation of Interest, to reflect changes required by the passage of the Prompt Payment Act Amendments of 1988.

#### Chapter 7, Bonds, Insurance and Taxes

##### 7.1.10 Sureties

Paragraph d, Deposit of Assets Instead of Surety Bonds, subparagraph 3, removes the requirement that the Postal Service pay interest on assets deposited in lieu of a surety bond.



**7.2.4.a Errors and Omissions Insurance**

Paragraph a, Professional Services, deletes the requirement that appraisers, attorneys, brokers, title examiners, surveyors and nurses carry errors and omissions (malpractice) insurance.

**Chapter 8, Special Categories of Contracts****Exhibit 8.1.2 Special and Procedural Authority**

Exhibit 8.1.2 is revised to show that the Postal Service Treasurer is the policy-originating official authorized to issue supplemental policy and procedures for the acquisition of banking services.

**Chapter 9, Patents and Data Rights****9.3.2 Data Rights Acquisitions Policy**

Paragraph d is revised, and Paragraph e is deleted to clarify the Postal Service's liability for the use or disclosure of data prior to the addition of a restrictive legend by the submitter. The paragraphs following paragraph e have been recodified.

**Chapter 10, Socioeconomic Policies****Throughout**

Woman-owned businesses is added throughout this chapter to include them in the USPS Socioeconomic Program.

**10.1.4 Contracting with Minority-owned and Woman-owned Businesses**

Paragraph c is revised as previously published in *Postal Bulletin* 21733, 7/13/89.

**10.1.5 Subcontracting with Small, Minority-owned and Woman-owned Businesses**

This part is revised as previously published in *Postal Bulletin* 21727, 6/1/89.

**10.5 Drug-Free Workplace**

This new section is added in accordance with the decision by the Postal Service to voluntarily comply with the intent and purpose of the Drug-Free Workplace Act.

**Chapter 11, Facilities.****11.2.2 Real Estate-Related Services**

Paragraph a is changed to require that source lists be developed as needed, rather than maintained, and to provide for alternative methods of publicizing requests for qualifications statements. Paragraph c is revised to add a sentence permitting the use of oral solicitations using the simplified purchasing procedures.

**11.4.1 General (Leasing of Interests in Facilities)**

A new Paragraph a is added, defining "lease." Paragraph c is expanded to describe the scope of negotiations permitted and to limit the disclosure of information as to the number and identity of offerors. A new Paragraph d is added, describing evaluation criteria for the award of leases.

**11.4.2 Leases of Existing Space**

Subparagraphs d.1 and d.2 are combined and rewritten for clarity. A new subparagraph d.3 is added, allowing lessors to make improvements.

**11.4.3 New Construction Leases**

Paragraph b deletes the requirements that new construction lease solicitations agree with Procurement Manual requirements and substitutes a statement that requirements must be set forth in the solicitation.

**11.5.1 Procurement of Construction**

Paragraph a is revised to clarify that "construction," as defined, does not include a lease. A new Paragraph b is added, which provides that construction accomplished under a lease may be procured noncompetitively and without publicizing.

Subparagraph f.3 (old e.3) is to provide that when a "brand name or equal" description is used, and more than three acceptable brands are known, only three need be listed.

**11.5.4 Contractor Prequalification**

Subparagraph b.2 is revised so that the requirements for selection of firms to receive solicitations agree with the procedures in Handbook RE-14, *Design and Construction*.

**Chapter 12, Mail Transportation****12.1.2 General**

This part is revised to provide that the issuance of policies, procedures and information on other publications will be done only as an interim measure, pending incorporation in Chapter 12 or the Mail Transportation Handbook.

**12.2.2 Definitions**

This part is revised to eliminate descriptions of contract types and modes, which are now described in 12.4.6. c and d.

**12.3.2 Authority of Contracting Officers**

This part is revised to conform with 12.3.4 Delegations of Authority and to clarify ratification authority.

**12.3.4 Delegations of Authority**

This part is revised to clarify that delegations are for any category of mail transportation contract (regular, emergency, or temporary) of the modes specified, both advertised and negotiated.

**12.3.5 Contracting Officer's Representatives**

Subparagraph b.2 (c) is added to reflect that a contracting officer's representative may be authorized to review and sign contract modifications having no effect on price.

**12.4.2 Procurement Planning**

This part is revised to require that proposal evaluation criteria be established in accordance with 2.1.6.c.

**12.4.4 Solicitation Mailing Lists, and 12.4.5 Publicizing and Distribution of Solicitations**

These new parts contain detailed procedures replacing the previous 12.4.4 Publicizing Procurement Actions.

**12.4.6 Procurement Methods**

Paragraph a is revised to add Limited Competitive Procedures and Set-Rate Ordering Agreements. Paragraph c is revised to describe contract categories by term (regular, emergency, and temporary) and to provide guidance for their use. A new Paragraph e is added to provide for sequential receipt of best and final offers in certain situations.

**12.4.7 Mistakes in Bids or Proposals**

This part is revised to clarify language and references.

**12.4.8 Protests**

This part is revised to be consistent with 4.5.6 Protests Received by Contracting Officer.

**12.4.9 Small, Minority-owned and Woman-owned Businesses**

This part is revised to add women-owned businesses and to clarify references.

**12.4.10 Renewal of Contracts, 12.4.11 Extension of Contracts, 12.4.12 Contract Changes, 12.4.13 Subcontracting, 12.4.14 Release of Contractor, 12.4.15 Service Deficiencies, 12.4.16 Death or Incompetence of Contractor**

These parts were previously numbered 12.7.5 through 12.7.11. Because they apply mainly to negotiated contracts, they have been moved to Section 4.

Paragraph 10.d is revised to clarify restrictions on contract renewals.



Paragraph 10.e adds additional procedures and approval requirements.

Paragraph 11.a is revised to distinguish between contract extension and renewal. Paragraphs 11.b through 11.d are revised to clarify procedural and approval requirements.

Subparagraph 12.c.1 is revised to define a minor service change in terms of a compensation rate of \$150,000 or less. Paragraph 12.e is revised to describe schedule changes for highway or inland domestic water contracts, and a new Paragraph 12.f is added for emergency contracts.

Part 12.4.13 is revised to provide separate coverage for highway or inland domestic water contracts and other surface contracts or air contracts.

Part 12.4.14 is revised to provide separate coverage for highway or inland domestic water routes and other routes.

#### 12.5.2 Service Employees

Subparagraph a.8 makes ineligible persons whose behavior indicates they are potentially dangerous to other employees.

#### 12.6.3 Major Irregularity

This part is revised to provide that, when a major irregularity occurs, the contracting officer may take immediate suspension or removal action without prior notice to the contractor, and that suspension may be with or without pay, as provided in the contract.

#### 12.7 Advertised Contracts

This section is completely revised to add detailed policy and procedural requirements.

#### 12.8 Negotiated Contracts

This section is deleted and its focus moved to Section 4, General Policies.

#### Exhibit 12.1.1 Applicability of Procurement Manual to Mail Transportation

This Exhibit is revised to correct and add applicability requirements and references.

#### Exhibit 12.4.6 International Ocean Transportation Schedule of Rates

This new Exhibit is added to supplement coverage in Subparagraph 12.4.6.b.2.

#### Appendix A, Solicitations

##### A.2.4 Representations and Certifications

Paragraph b, subparagraph 3, is revised to show that when proposals of \$50,000 or more are anticipated, the solicitation must include Provision 10-4, *Equal Opportunity Affirmative Action Program*.

#### Provision A-8, Contract Award

Paragraph d of the provision is revised to show that under certain circumstances the Postal Service may, before the proposal's specified expiration time, accept a proposal whether or not there are discussions or negotiations after its receipt.

#### Provision A-20, Type of Business Organization

This provision is revised to include definitions.

Provision 10-4, *Equal Opportunity Affirmative Action Program*, and 10-5, *Preaward Equal Opportunity Compliance Review* reflect the revisions published in Procurement Manual Circular 89-1, 4/24/89.

#### Appendix B, Contract Clauses

Clause B-22, *Interest*, is revised to show that the Postal Service will pay interest on late payments and unearned discounts, in accordance with the Prompt Payment Act and the Prompt Payment Act Amendments.

Clause 2-1, *Inspection—Fixed Price*, and 2-2, *Inspection—Non-Fixed Price*, are revised to clearly delineate the minimum acceptable quality control system which a supplier may provide the Postal Service.

Clause 2-9, *Definition of Delivery Terms and Contractor's Responsibilities*, is revised to show that, on f.o.b. origin contracts, contractors may make shipments on endorsed commercial bills of lading when transportation charges for individual shipments do not exceed \$100.

Clause 7-3, *Deposit of Assets Instead of Surety Bonds*. This clause is changed to delete the requirement that the Postal Service pay interest on these assets.

Clause 10-1, *Participation of Small, Minority-owned and Woman-owned Businesses*, and 10-2, *Small, Minority-owned and Woman-owned Business Subcontracting Requirements* reflect the Postal Service's inclusion of woman-owned businesses in its Socioeconomic Program.

Clause 10-4, *Contract Work Hours and Safety Standards Act—Overtime Compensation*, 10-5, *Davis-Bacon Act*, 10-7, *Contract Work Hours and Safety Standards Act—Safety Standards*, and 10-12, *Service Contract Act*, reflect the revisions published in Procurement Manual Circular 89-1, 4/24/89.

Clause 10-20, *Drug-Free Workplace*. This clause is added in accordance with the decision by the Postal Service to voluntarily comply with the intent and purpose of the Drug-Free Workplace Act.

Appendix C, *Forms and Formats*, and Appendix D, *Rules of Practice Relative to Debarment and Suspension from Contracting*, are revised to change terminology.

Appendix F, *Index*, is updated to reflect the changes in this Transmittal Letter.

#### List of Subjects in 39 CFR Part 601

Government procurement, Postal Service, Incorporation by reference.

#### PART 601—[AMENDED]

1. The authority citation for part 601 continues to read as follows:

Authority: 5 U.S.C. 552(a); 39 U.S.C. 401, 404, 410, 411, 2008, 5001-5005.

2. In consideration of the foregoing, the table at the end of 39 CFR 601.105 is revised to read as follows:

#### § 601.105 Amendments to the Procurement Manual.

\* \* \* \* \*

Transmittal letter	Dated	Federal Register publication
2.....	June 1, 1988.....	53 FR 24265
3.....	December 1, 1989.	54 FR [Insert FR Page Number]

Fred Eggleston,

Assistant General Counsel Legislative Division.

[FR Doc. 89-27440 Filed 11-21-89; 8:45 am]

BILLING CODE 7710-12-M

#### ENVIRONMENTAL PROTECTION AGENCY

##### 40 CFR Part 271

[FRL 3680-9]

#### Wisconsin: Final Authorization of State Hazardous Waste Management Program

AGENCY: Environmental Protection Agency.

ACTION: Immediate final rule.

**SUMMARY:** Wisconsin has applied for final authorization of a revision to its hazardous waste program under the Resource Conservation and Recovery Act (RCRA). EPA has reviewed Wisconsin's application and has made a decision, subject to public review and comment, that Wisconsin's hazardous waste program revision satisfies all of the requirements for final authorization. Wisconsin's application for program



revision is available for public review and comment.

**DATES:** Final authorization for Wisconsin's program revision will be effective January 22, 1990, unless EPA publishes a prior Federal Register action withdrawing this immediate final rule. All comments on Wisconsin's program revision application must be received by the close of business December 22, 1989.

**ADDRESSES:** Copies of Wisconsin's program revision application are available from 8:30 a.m., to 4:30 p.m., at the following addresses for inspection and copying: Wisconsin Department of Natural Resources, Bureau of Solid Waste Management, 101 South Webster Street, Madison, Wisconsin 53707. Contact—St. Clair Thompson (608) 266-5376; U.S. EPA Headquarters Library, PM211A, 401 M Street, SW., Washington, DC 20460, Phone: (202) 382-5926; U.S. EPA Region V, Waste Management Division, Office of RCRA, 230 South Dearborn Street, Chicago, Illinois 60604, Contact—Brian Barwick (312) 886-6085. Written comments should be sent to Brian Barwick, Wisconsin Regulatory Specialist, U.S. EPA Region V, Waste Management Division, Office of RCRA, 230 South Dearborn Street, 5HR-JCK-13, Chicago, Illinois 60604, (312) 886-6085 FTS 8-886-6085.

**FOR FURTHER INFORMATION CONTACT:** Brian Barwick, Wisconsin Regulatory Specialist, U.S. EPA Region V, Waste Management Division, Office of RCRA, 230 South Dearborn Street, 5HR-JCK-13, Chicago, Illinois 60604, (312) 886-6085 FTS 8-886-6085.

#### SUPPLEMENTARY INFORMATION

##### A. Background

States with final authorization under section 3006(b) of RCRA (or "the Act"), 42 U.S.C. 6926(b), have a continuing obligation to maintain a hazardous waste program that is equivalent to, consistent with, and no less stringent than the Federal hazardous waste program. In addition, as an interim Measure, the Hazardous and Solid Waste Amendments of 1984 (Pub. L. 98-616, November 8, 1984, hereinafter "HSWA") allows States to revise their program to become substantially equivalent instead of equivalent to RCRA requirements promulgated under HSWA authority. States exercising the latter option receive "interim authorization" for the HSWA requirements under section 3006(g) of RCRA, 42 U.S.C. 6926(g), and later apply for final authorization for the HSWA requirements.

Revisions to State hazardous waste programs are necessary when Federal or

State statutory or regulatory authority is modified or when certain other changes occur. Most commonly, State program revisions are necessitated by changes to EPA's regulations in 40 CFR parts 124, 260-266, 268, and 270.

##### B. Wisconsin

Wisconsin initially received final authorization on January 31, 1986. Wisconsin received authorization for revisions to its program effective on June 6, 1989. Today, Wisconsin is seeking approval of additional State program revisions in accordance with 40 CFR 271.21(b)(4).

On March 31, 1988, Wisconsin submitted an application that requested authorization for State regulatory revisions analogous to the following provisions of the Federal program:

Federal provision	Analogous state provision(s)
Interim Status Standards, Landfill Cover Design Standards, 50 FR 16044-16048, April 23, 1985.	Wisconsin Administrative Code, Sections NR 181: .415(2); .42(8)(d); .42(9)(b); .44(10) (b), (c), (f), and (k); .44(12)(a)1.a.5 and b.1; .44(14)(b); and .55(6)(c) (effective April 1, 1988).
Clarification of Spent Pickle Liquor Listing, 51 FR 19320, May 28, 1986, as amended by 51 FR 33612, September 22, 1986.	Wisconsin Administrative Code, Section NR 181: .16(2)(b) Table III (effective April 1, 1988).
Paint Filter Test, 50 FR 18370-18376, April 30, 1985.	Wisconsin Administrative Code, Sections NR 181: .42(1) (d) and (e); .42(6)(b)1.d.; and .44(10)(e)2. (effective April 1, 1988).
Dust Suppression, 50 FR 28702-28755, July 15, 1985.	Wisconsin Administrative Code, Sections NR 181: .16(3); .19; and .415 (effective April 1, 1988).
Location Standards for Salt Domes, Salt Beds, Underground Mines and Caves 50 FR 28702-28755, July 15, 1985.	Wisconsin Administrative Code, Section NR 181: .415(4) (effective April 1, 1988).
Standards for Generators; Waste Minimization Certifications, 50 FR 28702-28755, July 15, 1985, as Amended by 51 FR 55190-55194, October 1, 1986.	Wisconsin Administrative Code, Sections NR 181: .23(2)(f), (h)9, (h)11 and (i); .24(1) (f) and (g); .42(6)(b)1.j.; .42(6)(c)1.; .53; and .55(8)(k)4. (effective April 1, 1988).
Cement Kilns 50 FR 28702-28755, July 15, 1985.	Wisconsin Administrative Code, Sections NR 181: .16(3) and .19 (effective April 1, 1988).
Groundwater Monitoring, 50 FR 28702-28755, July 15, 1985.	Wisconsin Administrative Code, Sections NR 181: .43(9)(a); .44(10)(u); .49(1); and .49(6) (effective April 1, 1988).

Federal provision	Analogous state provision(s)
Listing of TDI, DNT, and TDA Wastes, 50 FR 42936-42943, October 23, 1985.	Wisconsin Administrative Code, Sections NR 181: .16(2)(b) Table III; .16(3)(c) Table IV; and Appendix II (effective April 1, 1988).
Listing of Spent Solvents, 50 FR 53315-53320, December 31, 1985.	Wisconsin Administrative Code, Section NR 181: .16(2)(a) Table II (effective April 1, 1988).
Listing of EDB Wastes, 51 FR 5330, February 13, 1986.	Wisconsin Administrative Code, Sections NR 181: .16(2)(b) Table III; and Appendix II (effective April 1, 1988).
Listing of Four Spent Solvents (Still Bottoms) 51 FR 6541, February 25, 1986.	Wisconsin Administrative Code, Sections NR 181: .16(2)(a) Table II; .16(3)(c) Table V; and Appendix II (effective April 1, 1988).
Small Quantity Generators, 51 FR 10174-10176, March 24, 1986.	Wisconsin Administrative Code, Sections NR 181: .12; .13(1) through (5) and (8); .16(3)(c); .215(5)(a); and .42(1)(a)12. (effective April 1, 1988).

<sup>1</sup> Promulgated pursuant to HSWA.

In July 1988, EPA sent comments to the State concerning the application. The State responded by providing additional information with a letter dated September 14, 1988. On the basis of the application, as supplemented by the State's September 14, 1988, letter, EPA has determined Wisconsin's program revisions, with the exception of one State rule discussed below, satisfy the criteria for final authorization.

In addition to the provisions of the Federal program listed above, the State applied for authorization for the Federal ban on liquids in landfills. The Federal ban on liquids in landfills was promulgated on July 15, 1985, (50 FR 28702), and amended on May 28, 1986 (50 FR 19176). The State asserts that section NR 181.44(10)(e) of the Wisconsin Administrative Code, in effect, bans liquids in landfills. However, EPA is withholding authorization for this provision of the Federal program until the State clarifies section NR 181.44(10)(e) to provide more explicitly for a ban on liquids in landfills.

It should be noted that the Federal ban on liquids in landfills was promulgated pursuant to HSWA. Therefore, as explained in section C of this notice, the Federal ban remains in effect in Wisconsin and continues to be imposed by EPA. The State believes section NR 181.44(10)(e) requires a ban on liquids in landfills and will, under



State authorities, continue to impose a State ban on liquids in landfills.

State program revisions to incorporate the Federal ban on liquids in landfills were due on July 1, 1989. Wisconsin has received an extension for completing these and other revisions that were due on July 1, 1989. The extension is for six months and was granted by EPA pursuant to 40 CFR 271.21(e)(3). If at the end of the six month extension period the State has not completed the program revisions that were due on July 1, 1989, EPA may place the State on a schedule of compliance under 40 CFR 271.21(g). If the State is placed on a schedule of compliance, notice of that action will be published in the Federal Register.

EPA intends to grant final authorization to Wisconsin for its additional program revisions. The public may submit written comments on EPA's immediate final decision up until December 22, 1989. Copies of Wisconsin's application for these program revisions are available for inspection at the locations indicated in the "ADDRESSES" section of this notice.

Approval of Wisconsin's program revisions shall become effective in 60 days unless an adverse comment pertaining to the State's revisions discussed in this notice is received by the end of the comment period. If an adverse comment is received, EPA will publish either (1) a withdrawal of this immediate final rule or (2) a notice containing a response to the comment which either affirms that the immediate final decision takes effect or reverses the decision.

EPA shall administer any RCRA hazardous waste permits, or portions of permits, that contain conditions based upon the Federal program provisions for which the State is applying for authorization and which were issued by EPA prior to the effective date of authorization. EPA will suspend issuance of any further permits under the provisions for which the State is authorized on the effective date of authorization. EPA has previously suspended issuance of permits for other provisions on January 31, 1986, and June 6, 1989, the effective dates Wisconsin's authorizations for the RCRA program.

Wisconsin is not authorized to operate the Federal Program on Indian land. This authority shall remain with EPA.

#### C. Effect of HSWA on Wisconsin's Authorization

Prior to the Hazardous and Solid Waste Amendments to RCRA, a State with final authorization would have administered its hazardous waste program entirely in lieu of EPA. The

Federal requirements no longer applied in the authorized States, and EPA could not issue permits for any facilities the State was authorized to permit. When new, more stringent, Federal requirements were promulgated or enacted, the State was obligated to promulgate or enact equivalent authority within specified time frames. New Federal requirements did not take effect in an authorized State until the State adopted the requirements as State law.

In contrast, under the amended section 3006(g) of RCRA, 42 U.S.C. 6926(g), new requirements and prohibitions imposed by the HSWA take effect in authorized States at the same time as they take effect in non-authorized States. EPA is directed to carry out those requirements and prohibitions in authorized States, including the issuance of full or partial permits, until the State is granted authorization to do so. While States must still adopt HSWA related provisions as State law to retain final authorization, the HSWA provisions apply in authorized States in the interim.

As a result of the HSWA, there will be a dual State/Federal regulatory program in Wisconsin. To the extent the authorized State program is unaffected by the HSWA, the State program will operate in lieu of the Federal program. To the extent HSWA related requirements are in effect, EPA will administer and enforce those portions of the HSWA in Wisconsin until the State receives authorization to do so. Among other things, this will entail the issuance of Federal RCRA permits for those areas in which the State is not yet authorized.

Once Wisconsin is authorized to implement a HSWA requirement or prohibition, the State program in that area will operate in lieu of the Federal program. Until that time, the State may assist EPA's implementation of the HSWA under a Cooperative Agreement.

Today's rulemaking includes authorization of Wisconsin's program for several requirements implementing the HSWA. Those requirements implementing the HSWA are specified in the table in part B of this notice. Any State requirement that is more stringent than a Federal HSWA provision will also remain in effect; thus, regulated handlers must comply with any more stringent State requirements.

EPA has published a Federal Register notice that explains in detail the HSWA and its effect on authorized States. That notice was published at 50 FR 28702-28755, July 15, 1985.

#### D. Decision

I conclude that Wisconsin's application for program revisions meets all of the statutory and regulatory requirements established by RCRA. Accordingly, EPA intends to grant Wisconsin final authorization to operate its hazardous waste program as revised.

Wisconsin will have expanded responsibility for permitting treatment, storage, and disposal facilities within its borders and carrying out other aspects of the RCRA program, subject to the limitations of its revised program application and previously approved authorities. Wisconsin will also have expanded enforcement responsibilities, although EPA will retain the right to conduct inspections under section 3007 of RCRA and to take enforcement actions under sections 3008, 3013, and 7003 of RCRA.

#### E. Codification of Part 272

On February 21, 1989 (54 FR 7422), U.S. EPA published a Federal Register notice which codified the Wisconsin hazardous waste program that was in effect when U.S. EPA granted Wisconsin final authorization (see 51 FR 3783). One of the reasons U.S. EPA codified Wisconsin's hazardous waste program was to provide the public with notice of the scope of Wisconsin's authorized program. In a future Federal Register notice, U.S. EPA will codify Wisconsin's revised hazardous waste program.

*Compliance With Executive Order 12291:* The Office of Management and Budget has expected this rule from the requirements of section 3 of Executive Order 12291.

*Certification Under the Regulatory Flexibility Act:* Pursuant to the provisions of 4 U.S.C. 605(b), I hereby certify that this authorization will not have a significant economic impact on a substantial number of small entities. This authorization effectively suspends the applicability of certain Federal regulations in favor of Wisconsin's program, thereby eliminating duplicative requirements for handlers of hazardous waste in the State. It does not impose any new burdens on small entities. This rule, therefore, does not require a regulatory flexibility analysis.

*Authority:* This notice is issued under the authority of section 2002(a), 3006, and 7004(b) of the Solid Waste Disposal Act as amended, 42 U.S.C. 6912(a), 6926, 6974(b).

Dated: September 29, 1989.

Valdas V. Adamkus,

Regional Administrator.

[FR Doc. 89-27072 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M



# DEPARTMENT OF HEALTH AND HUMAN SERVICES

## Public Health Service

### 42 CFR Part 36

RIN 0905-AD09

### Indian Health; Subpart E—Preference in Employment

**AGENCY:** Indian Health Service, HHS.

**ACTION:** Final rule.

**SUMMARY:** This rule amends the definition of the term "Indian" for purposes of Indian preference in employment in the Indian Health Service (IHS) to continue the application of Indian preference to persons of the Osage Tribe of Oklahoma, who are at least one-quarter degree Indian ancestry. The amendment extends the previous expiration date of September 14, 1988 to January 4, 1990, to permit the tribe to organize and to establish current membership standards.

**EFFECTIVE DATE:** November 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Richard J. McCloskey, (301) 443-1116. (This is not a toll free number).

**SUPPLEMENTARY INFORMATION:** As a result of the April 22, 1977, decision of the U.S. District Court for the District of Columbia in *Tyndall v. U.S.*, the Department of Health and Human Services (HHS) is under continuing court order to apply the same definition of the term "Indian" for purposes of Indian preference in employment in the IHS as that adopted by the Department of the Interior (DOI) and to publish the definition as a regulation in the *Federal Register* within 30 days of the DOI's publication.

Rulemaking procedures under the Administrative Procedure Act (5 U.S.C. 8553) generally involve publication of a notice of proposed rulemaking, affording interested persons the opportunity to comment, and publication of the final rule after consideration of the comments received. However, in this case, no notice of proposed rulemaking (NPRM) is required. As a result of the Court's order, the Department has no discretion in this matter and, therefore, pursuant to 5 U.S.C. 533(b)(B) the Department is waiving the proposed rulemaking requirements.

On July 11, 1978 (42 FR 29783), the HHS published a final rule which brought the definition of Indian for purposes of Indian preference in employment in the IHS into conformance with the DOI definition published January 17, 1978 (42 FR 2393). On July 17, 1981 (46 FR 37044, 45), on

October 4, 1984 (49 FR 39157), on September 15, 1986 (51 FR 32631, 32), and most recently January 5, 1989 (54 FR 282), the DOI amended its definition to continue the application of Indian preference to persons of the Osage Tribe of Oklahoma, who are at least one-quarter degree Indian ancestry. The HHS rule was revised on November 4, 1981 (45 FR 54743), November 6, 1984 (49 FR 44288, 89), and July 24, 1987 to conform to the DOI's 1981 and 1984 and 1986 changes.

The membership rolls of the Osage Tribe of Oklahoma, like a number of other tribes, were closed by an act of Congress, and therefore, these tribes did not have current membership standards. The original regulation provided a 3-year period for such tribes to formally organize and establish membership standards and, in the interim, permitted persons of one quarter degree blood of such tribes to qualify for Indian preference rather than having to meet the normal one half degree requirement. This was extended three times to give the Osage Tribe additional time to establish membership standards. The new DOI regulation and this HHS revision again extend the expired date for one final year from the date of publication of the extension rule. The quarter degree standard will remain applicable through January 4, 1990 or until the Osage tribe has formally organized and established membership standards, whichever comes first.

Under terms of the Court's order and our conforming regulations the IHS has been obligated to apply the revised DOI definition of Indian for purposes of employment uninterruptedly since 1978.

The Department's definition varies slightly from that of the DOI in order to clarify that there is no gap in the application of the definition to people of Osage ancestry. People of Osage ancestry, who are employed by the IHS and who received preference in any previous appointment, will continue to be preference eligibles so long as they are employed in HHS positions governed by the Indian Preference Act.

The Department of Health and Human Services has determined that this document is not a major rule and does not require a regulatory analysis under Executive Order 12291.

The Department of Health and Human Services has determined that this document does not have a significant economic effect on a substantial number of small entities. This rule affects only persons of the Osage Tribe of Indians.

## List of Subjects in 42 CFR Part 36

Alaska natives, Employees, Eskimos, Government employees, Health, Indian preference, and Indians.

Dated: July 13, 1989.

James O. Mason,  
Assistant Secretary for Health.

Approved: November 1, 1989.

Louis W. Sullivan,  
Secretary.

Accordingly, the Department of Health and Human Services revises 42 CFR 36.41(e) to read as follows:

## Subpart E—Preference in Employment

1. The authority citation for subpart E continues to read as follows:

Authority: 25 U.S.C. 44, 45, 46 and 472; Pub. L. 83-568, 42 U.S.C. 2003.

2. Paragraph (e) of § 36.41 is revised as follows:

### § 36.41 Definitions.

(e) Until January 4, 1990 or until the Osage Tribe has formally organized, whichever comes first, a person of at least one-quarter degree Indian ancestry of the Osage Tribe of Indians, whose rolls were closed by an act of Congress. [FR Doc. 89-27330 Filed 11-21-89; 8:45 am]

BILLING CODE 4160-16-M

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

### 43 CFR Public Land Order 6755

[CA-940-00-4214-10; CACA 26000]

### Partial Revocation of Secretarial Order dated July 15, 1907; California

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Public land order.

**SUMMARY:** This order revokes one Secretarial order insofar as it affects 40 acres of National Forest System land withdrawn for use of the Forest Service in connection with the Bear Canyon Administrative Site. This action will open the land to allow completion of a Forest Service exchange. This land is no longer needed for administrative site purposes. The land has been and will remain open to mineral leasing.

**EFFECTIVE DATE:** December 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Judy Bowers, BLM California State Office, Federal Office Building, 2800 Cottage Way, Sacramento, California 95825, (916) 978-4820.



By virtue of the authority vested in the Secretary of the Interior by section 204 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2751; 43 U.S.C. 1714, it is ordered as follows:

1. Secretarial Order dated July 15, 1907, which withdrew land for the Bear Canyon Administrative Site, is hereby revoked insofar as it affects the following described land:

**San Bernardino Meridian**

T. 2 N., R. 7 W.,  
sec. 19, SE $\frac{1}{4}$ SW $\frac{1}{4}$

The area described contains 40 acres in San Bernardino County.

2. At 10 a.m. on December 22, 1989, the land described in paragraph 1 shall be opened to such forms of disposition as may by law be made of National Forest System lands, subject to valid existing rights, the provisions of existing withdrawals, and the requirements of applicable law.

3. The land described in paragraph 1 remains withdrawn from operation of the mining laws by inclusion in an overlapping withdrawal under the Act of May 29, 1928.

Dated: November 13, 1989.

David C. O'Neal,

*Assistant Secretary of the Interior.*

[FR Doc. 89-27419 Filed 11-21-89; 8:45 am]

BILLING CODE 4310-40-M

**43 CFR Public Land Order 6756**

[ID-943-00-4214-10; IDI-26913]

**Partial Revocation of Secretarial Order Dated December 19, 1933; Idaho**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Public land order.

**SUMMARY:** This order revokes a Secretarial order insofar as it affects 9.80 acres of National Forest System land withdrawn for Power Site Classification No. 280 in the Boise National Forest. The withdrawal is being revoked so the Forest Service can complete a proposed exchange, which is in the public interest. The land is not needed for the purpose for which it was withdrawn. This action will open the land to surface entry. The land has been and will remain open to the mining and mineral leasing laws.

**EFFECTIVE DATE:** December 22, 1989.

**FOR FURTHER INFORMATION CONTACT:**

Larry R. Lievsay, BLM Idaho State Office, 3380 Americana Terrace, Boise, Idaho 83706, 208-334-1735.

By virtue of the authority vested in the Secretary of the Interior by section 204 of the Federal Land Policy and

Management Act of 1976, 90 Stat. 2751; 43 U.S.C. 1714, it is ordered as follows:

1. The Secretarial Order dated December 19, 1933, which withdrew land for Power Site Classification No. 280 is hereby revoked insofar as it affects the following described land:

**Boise Meridian**

A tract of land situated in the SE $\frac{1}{4}$ NW $\frac{1}{4}$  and NE $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 32, Township 18 North, Range 8 East, is more particularly described as follows:

Beginning at the NW  $\frac{1}{4}$  corner of section 32, T. 18 N., R. 8 E., monumented with a standard Forest Service aluminum monument, buried 6 inches below the ground in a cultivated field;

Thence, S. 89°36'58" E., 295 feet along the north boundary of the SE $\frac{1}{4}$ NW $\frac{1}{4}$  to a point on the center of a wood rail fence;

Thence along the center line with a traverse,

S. 11°18'49" W., 875.64 feet,

S. 19°25'43" E., 368.25 feet,

S. 06°41'04" E., 430.34 feet,

S. 19°20'51" W., 218.41 feet,

S. 87°07'59" W., 71.23 feet, leave rail fence, traverse along west edge of road S. 46°40'45" W., 212.56 feet to a point on the W  $\frac{1}{4}$  line; Thence, N. 00°06'02" E., 871.43 feet along said line to the C-W  $\frac{1}{4}$  corner monumented by a standard Forest Service aluminum monument;

Continue along said W  $\frac{1}{4}$  line N. 00°03'02" E., 1,319.34 feet to the NW  $\frac{1}{4}$  corner hereinbefore described, the point of beginning.

The areas described contains 9.80 acres in Valley County.

2. At 9 a.m. on December 22, 1989, the land described in paragraph one above shall be open to such forms of disposition as may be made of National Forest System land, subject to valid existing rights, the provisions of existing withdrawals, other segregations of record, and the requirements of applicable law. The land has been and will continue to be open to the mining and mineral leasing laws.

Dated: November 13, 1989.

David C. O'Neal,

*Assistant Secretary of the Interior.*

[FR Doc. 89-27420 Filed 11-21-89; 8:45 am]

BILLING CODE 4310-GG-M

**43 CFR Public Land Order 6754**

[OR-943-00-4214-10; GP9-310; OR-19014, OR-19115]

**Partial Revocation of the Executive Order Dated December 12, 1917, and Secretarial Order Dated December 12, 1917; Oregon**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Public land order.

**SUMMARY:** This order revokes one Executive order and one Secretarial order insofar as they affect 0.26 acre of land withdrawn for the Bureau of Land Management's Powersite Reserve No. 661, and Waterpower Designation No. 14. The land is no longer needed for power site or waterpower purposes. This action is needed to permit disposal of the land through public sale. This action will open the land to surface entry. The land has been and remains open to mineral leasing and is temporarily closed to mining by Notice of Realty Action.

**EFFECTIVE DATE:** December 22, 1989.

**FOR FURTHER INFORMATION CONTACT:**

Champ Vaughan, BLM Oregon State Office, P.O. Box 2965, Portland, Oregon 97208, 503-231-6905.

By virtue of the authority vested in the Secretary of the Interior by section 204 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2751; 43 U.S.C. 1714, it is ordered as follows:

1. The Executive Order dated December 12, 1917, which established Powersite Reserve No. 661, and the Secretarial Order dated December 12, 1917, which established Waterpower Designation No. 14, are hereby revoked insofar as they affect the following described land:

**Willamette Meridian**

Revested Oregon and California Railroad Grant Land

T. 21 S., R. 2 W.,

Sec. 7, lot 2 (formerly described as part of the fractional SW $\frac{1}{4}$ NW $\frac{1}{4}$ ).

The area described contains 0.26 acre in Lane County.

2. At 8:30 a.m., on December 22, 1989, the land will be opened to such forms of disposition as may by law be made on revested Oregon and California Railroad Grant land, subject to valid existing rights, the provisions of existing withdrawals, any segregations of record, and the requirements of applicable law.

Dated: November 13, 1989.

David C. O'Neal,

*Assistant Secretary of the Interior.*

[FR Doc. 89-27421 Filed 11-21-89; 8:45 am]

BILLING CODE 4310-33-M

**43 CFR Public Land Order 6753**

[OR-943-00-4214-10; GP-314; OR-22065(WASH)]

**Modification of the Secretarial Orders Dated January 21, 1908 and June 26, 1908; Washington**

**AGENCY:** Bureau of Land Management, Interior.



**ACTION:** Public land order.

**SUMMARY:** This order modifies the land description in two Secretarial orders to conform to the official approved plat of survey as to the land withdrawn for the Sullivan Lake Ranger Station.

**EFFECTIVE DATE:** November 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Champ Vaughan, BLM Oregon State Office, P.O. Box 2965, Portland, Oregon 97208, 503-231-6905.

By virtue of the authority vested in the Secretary of the Interior by section 204 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2751; 43 U.S.C. 1714, it is ordered as follows:

1. The Secretarial Orders dated January 21, 1908 and June 26, 1908, which withdrew land for administrative site purposes are hereby modified to conform the land description to the approved plat of survey insofar as they affect the following described land:

**Willamette Meridian**

*Colville National Forest; (formerly part of the Priest River National Forest)*

T 39 N., R. 44 E. (formerly unsurveyed),  
Sec. 29, lot 3 and SW 1/4 SW 1/4 (formerly described by metes and bounds);  
Sec. 30, lots 6 and 7, and S 1/4 SE 1/4 (Formerly described by metes and bounds);  
Sec. 31, lots 4 and 5, and N 1/4 NE 1/4 (formerly described by metes and bounds);  
Sec. 32, W 1/4 NW 1/4 (formerly described by metes and bounds).

The area described contains 422.19 acres in Pend Oreille County.

2. The land described in paragraph 1 has been and continues to be withdrawn from appropriation under the public land laws, including the United States mining laws (30 U.S.C. Ch. 2).

Dated: November 13, 1989.

David C. O'Neal,

*Assistant Secretary of the Interior.*

[FR Doc. 89-27422 Filed 11-21-89; 8:45 am]

BILLING CODE 4310-33-M

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 73

[MM Docket No. 88-397, RM-6326]

### Radio Broadcasting Services; Essex, CA

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This document allots Channel 255B to Essex, California, as that

community's first local broadcast service, in response to a petition filed by Howard B. Anderson. Coordinates for Channel 255B at Essex, California, are 34-45-51 and 115-15-07. See 53 FR 36786, September 22, 1988. With this action, the proceeding is terminated.

**DATES:** Effective December 29, 1989; the window period for filing applications on Channel 255B at Essex, California will open on January 2, 1990, and close on February 1, 1990.

#### FOR FURTHER INFORMATION CONTACT:

Ordee Pearson, (202) 634-6530. Questions related to the window application filing process at Essex, California, should be addressed to the Audio Service Division, FM Branch, Mass Media Bureau, (202) 632-0394.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Report and Order in MM Docket No. 88-397, adopted October 19, 1989, and released November 14, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

### 47 CFR PART 73—[AMENDED]

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303.

#### § 73.202 [Amended]

2. Section 73.202(b), the Table of Allotments, is amended under California by adding Essex, Channel 255B.

Federal Communications Commission.

Karl A. Kensinger,

*Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.*

[FR Doc. 89-27361 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

### 47 CFR Part 73

[MM Docket No. 87-42; RM-5646, RM-5882, RM-5883, RM-5884]

### Radio Broadcasting Services; Rockport, Gregory, Alice and Armstrong, TX

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This document substitutes Channel 272C2 for Channel 272A at Rockport, Texas, and modifies the license of Station KPCB(FM) to specify operation on the higher class channel at the request of Aransas County Broadcasting. The community could receive its first wide-coverage area FM service. A site restriction of 26.6 kilometers (16.5 miles) southwest of the community is required, at coordinates 27-49-30 and 97-12-00. Concurrence of the Mexican government has been obtained. In addition, this action dismisses the petitions of Gregory Broadcasting (RM-5882) for Gregory, Texas, and Edgar L. Clinton (RM-5883) for Alice, Texas; and also denies the petition of Texas Media Group, Inc. (RM-5884) for Armstrong, Texas. With this action, this proceeding is terminated.

**EFFECTIVE DATE:** December 29, 1989.

#### FOR FURTHER INFORMATION CONTACT:

Patricia Rawlings, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Report and Order, MM Docket No. 87-42, adopted October 19, 1989, and released November 14, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street NW., Suite 140, Washington, DC 20037.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

### PART 73—[AMENDED]

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303.

#### § 73.202 [Amended]

2. Section 73.202(b), the Table of FM Allotments, is amended under Texas, by adding Channel 272C2 and removing Channel 272A at Rockport.

Karl A. Kensinger,

*Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.*

[FR Doc. 89-27362 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M



## 47 CFR Part 73

[MM Docket No. 87-88; RM-5523, RM-5578, RM-5947]

**Radio Broadcasting Services;  
Raymondville, Alice and Falfurrias, TX**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This document substitutes Channel 271C2 for Channel 269A at Raymondville, Texas, and Channel 275C2 for Channel 272A at Alice, Texas, at the request of Edgar L. Clinton and Alice Broadcasting Corporation. This action also modifies the licenses of Station KSOX-FM at Raymondville and Station KBIC(FM) at Alice to specify operation on the higher-class adjacent channel, accordingly. In addition, this action allots Channel 277A to Falfurrias, Texas, as that community's second local FM service, at the request of Falfurrias Broadcasting Enterprises. Alice and Raymondville could receive their first wide-coverage area FM services. Channel 277A at Falfurrias can be allotted at that community's reference coordinates, which are 27-13-30 and 98-08-36. Channel 271C2 at Raymondville requires a site restriction of 17.3 kilometers (10.8 miles) north of the city, at coordinates 26-38-00 and 97-45-00. Channel 275C2 can be utilized at the present site of Station KBIC(FM) at Alice. The coordinates are 27-46-35 and 98-04-41. Concurrence of the Mexican government has been obtained. With this action, this proceeding is terminated.

**DATES:** Effective December 29, 1989. The window period for filing applications for Channel 277A at Falfurrias, Texas, will open on January 2, 1990 and close on February 1, 1990.

**FOR FURTHER INFORMATION CONTACT:** Patricia Rawlings, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Report and Order, MM Docket No. 87-88, adopted October 19, 1989, and released November 14, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street NW., Suite 140, Washington, DC 20037.

**List of Subjects in 47 CFR Part 73**

Radio broadcasting.

## PART 73—[AMENDED]

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303.

## § 73.202 [Amended]

2. Section 73.202(b), the Table of FM Allotments, is amended under Texas, by adding Channel 271C2 and removing Channel 269A at Raymondville; by adding Channel 275C2 and removing Channel 272A at Alice; and by adding Channel 277A at Falfurrias.

Karl A. Kensinger,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 89-27360 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

**INTERSTATE COMMERCE  
COMMISSION**

**49 CFR Parts 1103, 1104, 1182 and  
1186**

[Ex Parte No. 55 (Sub-No. 77)]

**Implementation of 21 U.S.C. 853a—  
Denial of Federal Benefits to Drug  
Traffickers and Possessors**

**AGENCY:** Interstate Commerce Commission.

**ACTION:** Final rule.

**SUMMARY:** 21 U.S.C. 853a, enacted in the Anti-Drug Abuse Act of 1988 (Pub. L. 100-690), states that Federal benefits shall be withheld in certain circumstances from individuals who have been convicted of drug distribution or possession in Federal or State courts. In this proceeding, the Commission adopts a certification process to implement and enforce the requirements of 21 U.S.C. 853a. Since this matter involves agency practice and procedure, it is being issued as a final rule under 5 U.S.C. 553(b)(3)(A).

**EFFECTIVE DATE:** November 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Kathleen M. King (202) 275-7428, (TDD for hearing impaired: (202) 275-1721).

**SUPPLEMENTARY INFORMATION:** Federal agencies must implement and enforce the requirements of 21 U.S.C. 853a, which provides that Federal benefits are not to be granted to certain individuals who are convicted in Federal or State courts of either distribution or possession of controlled substances, after September 1, 1989. A "Federal benefit" as defined in 21 U.S.C. 853a(d) "means the issuance of any grant, contract, loan, professional license, or commercial license provided by an agency of the United States or by

appropriated funds of the United States." Certificates, licenses and permits to operate as motor, water, or rail carriers, household goods freight forwarders or property brokers are "Federal benefits" as defined in 21 U.S.C. 853a(d). An Interstate Commerce Commission Practitioner's license is also a "Federal benefit" under 21 U.S.C. 853a(d).

We have determined that the appropriate means to ensure that authority is not issued to individuals who have been convicted after September 1, 1989, of drug trafficking or possession and who are subject to the Federal benefits ban of 21 U.S.C. 853a, is to establish a procedure through which applicants for ICC authority certify that they are not ineligible to receive authority because of drug convictions. Since the statute only applies to individuals,<sup>1</sup> this certification requirement will only affect an individual applicant who applies for authority in his or her name. Corporations, joint owners or partnerships will not be required to complete the certification. The certification will be required in all applications that involve requests for certificates, licenses or permits that authorize motor, water, rail, household goods freight forwarding or property broker operations.

This certification will be required in small carrier transfer proceedings or notice of exemption proceedings in which the transferee is an individual because, as a result of Commission approval in these proceedings, the transferee will receive a certificate, license or permit, which is a "Federal benefit" under 21 U.S.C. 853a(d). Likewise, an individual, who applies for a certificate authorizing the operation or the construction or extension of a rail line, also will have to include this certification. An individual who seeks to acquire a rail line through the offer of financial assistance procedures that are available under the Commission's rail abandonment rules or the Feeder Line Development procedures will be required to include this certification in his or her filing. All applicants for an ICC Practitioner's license also will have to complete the certification.

The certification will be in the following form:

<sup>1</sup> Although the statute applies technically only to individuals, we concluded that there is nothing which precludes its application to corporations that are simply alter egos of individuals who would otherwise be barred by 21 U.S.C. 853a from receiving Commission licenses or other benefits.



I, \_\_\_\_\_ (Name) \_\_\_\_\_, certify under penalty of perjury under the laws of the United States, that I have not been convicted, after September 1, 1989, of any Federal or State offense involving the distribution or possession of a controlled substance, or that if I have been so convicted, I am not ineligible to receive Federal Benefits, either by court order or operation of law, pursuant to 21 U.S.C. 853a.

We will incorporate this certification in the Commission's application forms OP-1, OP-2, and OP-F-44 which are currently under revision. An attachment will be inserted in the OP-FC-1 form and the ICC Practitioner's application form. The certification will be incorporated into those forms when the forms are reprinted.

Since no application form is required for notice of exemption proceedings under 49 U.S.C. 11343 and applications involving purchase, merger and control of motor passenger and water carriers under 49 U.S.C. 11343 or 11344, we will modify our regulations in 49 CFR part 1182 and part 1186 to include this certification provision. Also, a new section, 49 CFR 1104.15 will be added to Part 1104—Pleadings, Generally, to provide for other instances for which the certification may be appropriate, such as rail proceedings which have no application forms.

If an individual applicant cannot complete this required certification, the Commission will reject the application or other filing.

This action will not significantly affect either the quality of the human environment or conservation of energy resources.

This action will have no significant effect on a substantial number of small entities.

#### List of Subjects

##### 49 CFR Part 1103

Administrative practice and procedure, Lawyers.

##### 49 CFR Part 1104

Administrative practice and procedure.

##### 49 CFR Part 1182

Administrative practice and procedure, Motor carriers, Maritime carriers.

##### 49 CFR Part 1186

Administrative practice and procedure, Freight forwarders, Motor carriers.

#### It is ordered:

Title 49 of the Code of Federal Regulations is amended as set forth below:

Decided: November 13, 1989.

By the Commission, Chairman Gradison, Vice Chairman Simmons, Commissioners André, Lamboley and Phillips. Commissioner André concurred.

Noreta R. McGee,  
Secretary.

For the reasons set forth in the preamble, title 49, chapter X, parts 1103, 1104, 1182, 1186 of the Code of Federal Regulations are amended as follows:

#### PART 1103—PRACTITIONERS

1. The authority citation for part 1103 is revised to read as follows:

Authority: 49 U.S.C. 10308 and 10321; 5 U.S.C. 559; 21 U.S.C. 853a.

2. Section 1103.3(c) is amended by renumbering the existing paragraph as (c)(1) and adding a new paragraph (c)(2) to read as follows:

#### § 1103.3 Persons not attorneys-at-law—qualifications and requirements for practice before the Commission.

\* \* \* \* \*

(c) \* \* \*

(2) *Certification:* All applicants must complete the following certification:

I, \_\_\_\_\_ (Name) \_\_\_\_\_, certify under penalty of perjury under the laws of the United States, that I have not been convicted, after September 1, 1989, of any Federal or State offense involving the distribution or possession of a controlled substance, or that if I have been so convicted, I am not ineligible to receive Federal Benefits, either by court order or operation of law, pursuant to 21 U.S.C. 853a.

\* \* \* \* \*

#### PART 1104—PLEADINGS; GENERALLY

3. The authority citation for part 1104 is revised to read as follows:

Authority: 49 U.S.C. 10321; 5 U.S.C. 559; 21 U.S.C. 853a.

4. Section 1104.15 is added to read as follows:

#### § 1104.15 Certification of Eligibility for Federal Benefits Under 21 U.S.C. 853a.

(a) An individual who is applying in his or her own name for a certificate, license or permit to operate as a motor, water, or rail carrier, household goods freight forwarder or property broker must complete the certification set forth in paragraph (b) of this section. This

certification is required if the transferee in a finance proceedings under 49 U.S.C. 10926, § 11343, or § 11344 is an individual. The certification also is required if an individual applies for authorization to acquire, to construct, to extend, or to operate a rail line.

#### (b) Certification:

I, \_\_\_\_\_ (Name) \_\_\_\_\_, certify under penalty of perjury under the laws of the United States, that I have not been convicted, after September 1, 1989, of any Federal or State offense involving the distribution or possession of a controlled substance, or that if I have been so convicted, I am not ineligible to receive Federal Benefits, either by court order or by operation of law, pursuant to 21 U.S.C. 853a.

#### PART 1182—PURCHASE, MERGER, AND CONTROL OF MOTOR PASSENGER CARRIERS AND WATER CARRIERS

5. The authority citation for part 1182 is revised to read as follows:

Authority: 5 U.S.C. 559, 49 U.S.C. 10321, 11321, 11341, 11343, 11344, and 11345a; 21 U.S.C. 853a.

6. Section 1182.3 is amended by adding a new paragraph (a)(12) to read as follows:

#### § 1182.3 Content of applications.

(a) \* \* \*

(12) If the transaction involves the transfer of operating authority to an individual who will hold the authority in his or her name that individual must complete the following certification:

I, \_\_\_\_\_ (Name) \_\_\_\_\_, certify under penalty of perjury under the laws of the United States, that I have not been convicted, after September 1, 1989, of any Federal or State offense involving the distribution or possession of a controlled substance, or that I have been so convicted, I am not ineligible to receive Federal Benefits, either by court order or operation of law, pursuant to 21 U.S.C. 853a.

\* \* \* \* \*

#### PART 1186—EXEMPTION OF CERTAIN TRANSACTIONS UNDER 49 U.S.C. 11343

7. The authority citation for part 1186 is revised to read as follows:

Authority: 49 U.S.C. 11321, 11343(e); 5 U.S.C. 553; and 21 U.S.C. 853a.

8. Section 1186.2 is amended by adding a new paragraph (f) to read as follows:



## § 1186.2 Notice of exemption.

\* \* \* \* \*

(f) If the transaction involves the transfer of operating authority to an individual who will hold the authority in his or her name, that individual must complete the following certification:

I, \_\_\_\_\_ (Name) \_\_\_\_\_, certify under penalty of perjury under the laws of the United States, that I have not been convicted, after September 1, 1989, of any Federal or State offense involving the distribution or possession of a controlled substance, or that if I have been so convicted, I am not ineligible to receive Federal Benefits, either by court order or operation of law, pursuant to 21 U.S.C. 853a.

[FR Doc. 89-27417 Filed 11-21-89; 8:45 am]

BILLING CODE 7035-01-M



# Proposed Rules

Federal Register

Vol. 54, No. 224

Wednesday, November 22, 1989

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF AGRICULTURE

### Agriculture Marketing Service

#### 7 CFR Part 968

[Docket No. AO FV-88-1; FV-88-110]

#### Seedless European Cucumbers Grown in the United States; Reopening and Extension of the Period to File Written Exceptions to Recommended Decision for Proposed Marketing Agreement and Order for Seedless European Cucumbers Grown in the United States

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Reopening and extension of the period to file written exception to recommended decision.

**SUMMARY:** Notice is hereby given that the time period for filing written exceptions to the recommended decision to establish a proposed marketing agreement and order for seedless European cucumbers grown in the United States is reopened and extended to December 13, 1989.

**DATES:** Written exceptions must be received by December 13, 1989.

**ADDRESSES:** Interested persons are invited to submit written exceptions in triplicate to the Hearing Clerk, United States Department of Agriculture, room 1079, South Building, Washington, DC 20250-9200. All written exceptions will be available for public inspection at the office of the Hearing Clerk during regular business hours.

**FOR FURTHER INFORMATION CONTACT:** Virginia Olson, Marketing Order Administration Branch, Fruit and Vegetable Division, AMS, USDA, P.O. Box 96456, room 2525-S, Washington, DC 20090-6456; telephone (202) 475-3930.

**SUPPLEMENTARY INFORMATION:** Prior documents in this proceeding: Notice of Hearing—Issued June 22, 1988, and published in the Federal Register on June 27, 1989, (53 FR 24070). Recommended Decision—Issued

September 29, 1989, and published in the Federal Register on October 11, 1989 (54 FR 41601).

A Recommended Decision and Opportunity to File Written Exceptions to Proposed Marketing Agreement and Order No. 968 for Seedless European Cucumbers Grown in the United States was issued pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674). The deadline for the submission of written exceptions to the recommended decision was November 13, 1989.

The U.S. Department of Agriculture (USDA) has received two requests from interested persons that the USDA provide more time for interested persons, including growers and handlers of seedless European cucumbers, to analyze the recommended decision.

Reopening and extending the period in which written exceptions may be filed will provide such interested persons more time to review the recommended decision and submit written exceptions thereto. Accordingly, the period in which to file written exceptions is reopened and extended until December 13, 1989.

This notice is issued pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674) and the applicable rules of practice and procedure governing the formulation of marketing agreements and marketing orders (7 CFR part 900).

#### List of Subjects in 7 CFR Part 968

Cucumbers, Marketing agreements and orders, United States.

Authority: Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674.

Dated: November 17, 1989.

Daniel Haley,  
Administrator.

[FR Doc. 89-27481 Filed 11-21-89; 8:45 am]

BILLING CODE 3410-02-M

## FEDERAL RESERVE SYSTEM

### 12 CFR Part 205

[Reg. E; EFT-2]

#### Electronic Fund Transfers; Proposed Update to Official Staff Commentary

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Proposed official staff interpretation.

**SUMMARY:** The Board is publishing for comment proposed changes to the official staff commentary to Regulation E (Electronic Fund Transfers). The commentary applies and interprets the requirements of Regulation E and is a substitute for individual staff interpretations of the regulation. The proposed revision addresses questions that have arisen about the requirements of the regulation relating to preauthorized transfers.

**DATE:** Comments must be received on or before January 19, 1990.

**ADDRESS:** Comments should refer to Docket No. EFT-2 and be sent to William W. Wiles, Secretary, Board of Governors of the Federal Reserve System, Washington, DC 20551, or delivered to room B-2222 of the Eccles Building between 8:45 a.m. and 5:15 p.m. weekdays or to the guard station in the Eccles Building Courtyard on 20th Street, NW. (between Constitution Avenue and C Street, NW.) any time. All comments received at the above address will be available for inspection and copying by any member of the public in the Freedom of Information Office, room B-1122 of the Eccles Building, between 9 a.m. and 5 p.m. weekdays.

**FOR FURTHER INFORMATION CONTACT:** Contact Mary Jane Seebach or Kurt Schumacher, Staff Attorneys, Division of Consumer Affairs, at (202) 452-3667 or (202) 452-2412. For the hearing-impaired only, Earnestine Hill or Dorothea Thompson, Telecommunications Device for the Deaf, at (202) 452-3544, Board of Governors of the Federal Reserve System, Washington, DC 20551.

#### SUPPLEMENTARY INFORMATION:

##### (1) General

The Electronic Fund Transfer Act (15 U.S.C. 1693 *et seq.*) governs any transfer of funds that is electronically initiated and that debits or credits a consumer's account. This statute is implemented by the Board's Regulation E (12 CFR part 205.)

The Board has published an official staff commentary (sup. II to 12 CFR part 205) to interpret the regulation. The commentary is designed to provide guidance to financial institutions and others in applying the regulation to specific situations. The commentary is



updated periodically to address significant questions that arise. This notice contains the proposed eighth update, which the Board expects to adopt in final form in March 1990.

## (2) Proposed revisions

Following is a brief description of the proposed revisions to the commentary:

### Section 205.10—Preauthorized Transfers

Question 10-19.5 would be added to address the situation where a financial institution receives a stop-payment order from a consumer for preauthorized debits initiated by a designated payee. The question clarifies that whenever a financial institution is notified the consumer's authorization is no longer valid, it must stop future payments.

### List of Subjects in 12 CFR Part 205

Banks, banking, Consumer protection, Electronic fund transfers, Federal Reserve System, Penalties.

Certain conventions have been used to highlight the revisions. New language is shown inside bold-faced arrows, and italicized, while language to be removed is set off with brackets.

## (3) Text of proposed revisions

Pursuant to authority granted in section 904 of the Electronic Fund Transfer Act, 15 U.S.C. 1693b, the Board proposes to amend the official staff commentary to Regulation E (12 CFR part 205, supp. II) as follows:

### PART 205—[AMENDED]

1. The authority citation for part 205 continues to read:

Authority: Pub. L. 95-630, 92 Stat. 3730 (15 U.S.C. 1693b).

2. Comment Q10-19.5 would be added to read as follows:

#### ► Q10-19.5: Preauthorized debits—stop-payment order.

A consumer authorizes a designated payee to initiate electronic fund transfer from the consumer's account. The consumer later revokes that authorization, and orders the financial institution to stop payment of all future debits initiated by that payee. Must the financial institution honor the consumer's request, or may it wait for the designated payee to terminate the automatic debits?

A: Since the financial institution has been notified the consumer's authorization is no longer valid, it must honor the consumer's order by stopping all future payments initiated by the designated payee. The financial institution may require written

confirmation of the consumer's revocation. ◀

Board of Governors of the Federal Reserve System, November 15, 1989.

William W. Wiles,

Secretary of the Board.

[FR Doc. 89-27410 Filed 11-21-89; 8:45 am]

BILLING CODE 6210-01-M

## 12 CFR Part 226

[Reg. Z; TIL-1]

### Truth in Lending; Proposed Update to Official Staff Commentary

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Proposed official staff interpretation.

**SUMMARY:** The Board is publishing for comment proposed revisions to the official staff commentary to Regulation Z (Truth in Lending). The commentary applies and interprets the requirements of Regulation Z and is a substitute for individual staff interpretations. The majority of the proposed revisions address the amendments to Regulation Z issued in April 1989 to implement the Fair Credit and Charge Card Disclosure Act of 1988 and the amendments to the regulation issued in June 1989 to implement the Home Equity Loan Consumer Protection Act of 1988. The proposal incorporates much of the guidance provided when those regulatory changes were adopted and addresses additional questions that have been raised about application of the new requirements. The other proposals deal with other provisions of Regulation Z, including the rules on substitution of telephone credit cards.

**DATES:** Comments must be received on or before January 19, 1990.

**ADDRESSES:** Comments should refer to Docket No. TIL-1 and be sent to Mr. William W. Wiles, Secretary, Board of Governors of the Federal Reserve System, Washington, DC 20551. They may be delivered to Room B-2222 of the Eccles Building between 8:45 a.m. and 5:15 p.m. weekdays or delivered to the guard station in the Eccles Building Courtyard on 20th Street, NW. (between Constitution Avenue and C Street, NW.) any time. All comments received at the above address will be available for inspection and copying by any member of the public in the Freedom of Information Office, Room B-1122 of the Eccles Building between 9:00 a.m. and 5:00 p.m. weekdays.

**FOR FURTHER INFORMATION CONTACT:** The following attorneys in the Division

of Consumer and Community Affairs, at (202) 452-3667 or (202) 452-2412:

Fair Credit and Charge Card Disclosure Act issues: Jane Ahrens, Michael Bylsma, Adrienne Hurt

Home Equity Loan Consumer Protection Act issues: Sharon Bowman, Leonard Chanin, Thomas Noto, John Wood

Other open-end credit issues: Jane Ahrens, Adrienne Hurt, John Wood

Closed-end credit issues: Michael Bylsma, Kurt Schumacher, Mary Jane Seebach

For the hearing impaired only, Telecommunications Device for the Deaf (TDD), Earnestine Hill or Dorothea Thompson, at (202) 452-3544, Board of Governors of the Federal Reserve System, Washington, DC 20551.

### SUPPLEMENTARY INFORMATION: (1)

**General.** The Truth in Lending Act (15 U.S.C. 1601 *et seq.*) governs consumer credit transactions and is implemented by the Board's Regulation Z (12 CFR part 226). Effective October 13, 1981, an official staff commentary (TIL-1, Supp. I to 12 CFR part 226) was published to interpret the regulation. The commentary is designed to provide guidance to creditors in applying the regulation to specific transactions and is updated periodically to address significant questions that arise. There have been eight general updates and one limited update so far. This notice contains the proposed ninth general update. It is expected that it will be adopted in final form in March 1990 with optional compliance until the uniform effective date of October 1, 1990, for mandatory compliance.

(2) **Proposed revisions.** Within the last year the Board adopted two major sets of amendments to Regulation Z. The first of these were amendments published in the Federal Register on April 6, 1989 (54 FR 13855) to implement the Fair Credit and Charge Card Disclosure Act of 1988, Public Law No. 100-583, 102 Stat. 2960 (FCCDA). (The Board also adopted technical amendments to Regulation Z, in further implementation of FCCDA, published on August 11, 1989, 54 FR 32953.) The mandatory effective date for the major portion of FCCDA was August 31, 1989, with the effective date for certain provisions delayed until November 29, 1989.

The second major set of amendments to Regulation Z comprised amendments published in the Federal Register on June 9, 1989 (54 FR 24670) to implement the Home Equity Loan Consumer Protection Act of 1988, Public Law No. 100-709, 102 Stat. 4725 (HELCPA). (See also the correction notice published on



July 7, 1989, 54 FR 28665.) The mandatory effective date of HELCPA was November 7, 1989.

The Federal Register notices containing the regulatory amendments implementing FCCCDA and HELCPA set forth a large amount of supplementary material interpreting the new regulations. In order to provide ongoing guidance, the proposed commentary revisions in this notice reflects, in large measure, that supplementary material. On some points the proposed commentary differs from the material published earlier this year; significant differences are noted below. The proposed commentary also addresses a number of issues that have arisen since the publication of the regulations.

In addition to the issues arising with regard to FCCCDA and HELCPA, additional revisions are proposed concerning other provisions of Regulation Z. For example, the proposed commentary revisions discusses tax refund anticipation loans; a possible new mortgage product, the price-level adjusted mortgage; and open-end credit advertising.

The text of all of the proposed revisions is presented below in the order in which it would appear in the commentary. To facilitate review and comment, however, the descriptions of the revisions are presented separately for the FCCCDA, the HELCPA, and the other provisions.

#### **Fair Credit and Charge Card Disclosure Act Provisions**

As mentioned above, the proposed commentary to the regulation incorporates much of the supplementary information that accompanied the final amendments when they were published in April 1989. Some new or revised material is included, however, as noted below.

#### **Section 226.5a Credit and Charge Card Applications and Solicitations**

##### **5a(b) Required Disclosures**

Comment 5a(b)(1)-6 would be added to state that premium initial rates would be required to be disclosed, although the rate that is otherwise applicable also may be disclosed. This interpretation differs from the disclosure required for a discounted initial rate, for which the otherwise applicable rate must be shown.

Comment 5a(b)(5)-1 would be added to state that a card issuer may, but need not, refer to the beginning and ending point and briefly state any applicable conditions for any grace period.

##### **5a(c) Direct Mail Applications and Solicitations**

Comment 5a(c)-1 discusses in detail the distinctions between applications and solicitations subject to the direct mail rule and those subject to the "take-one" rules.

##### **5a(e) Applications and Solicitations Made Available to General Public**

Comment 5a(e)(2)-1 would explain the general rule that the credit information provided to a consumer under this disclosure option must be current as of the time it is mailed or delivered to the general public. Comment 5a(e)(2)-2 would permit a card issuer to provide information that was current as of the time it was printed if the issuer also complies with § 226.5a(e)(1)(ii)—that is, states the date the required information was printed, including a statement that it was accurate as of that date and is subject to change thereafter.

Comment 5a(e)(3)-1 would prohibit card issuers from using this disclosure option if any kind of reference is made to a term or condition of credit required to be disclosed under § 226.5a(b) including statements such as "favorable rates" and "low costs."

##### **5a(g) Balance Computation Methods Defined**

Comment 5a(g)-2 would be added to discuss the applicability of the "two-cycle average daily balance" method. The interpretation incorporates a discussion of the technical clarification to the regulation about this method which was published on August 11, 1989 (54 FR 32953).

#### **Section 226.9 Subsequent Disclosure Requirements**

##### **9(e) Disclosures Upon Renewal of Credit or Charge Card**

Comments would address the renewal notices for credit and charge card accounts in which an annual fee is imposed. Using employee preferential rates as an example, comment 9(e)-3 would explain that renewal notices should state the terms actually imposed on the account.

Comment 9(e)-4 would clarify how a card issuer discloses a variable rate when the rate that will be in effect if the cardholder renews the account cannot be determined at the time the renewal notice is sent. Comment 9(e)-5 discusses disclosure alternatives for card issuers that bill renewal fees more often than annually.

Comment 9(e)(1)-1 discusses how issuers may comply with the requirement that cardholders who receive an advance notice must be given

the lesser of 30 days or 1 full billing cycle both to make a decision about the renewal of the account and to use the card without having the fee billed to the account.

#### **Section 226.28 Effect on State Laws**

##### **28(d) Special Rule for Credit and Charge Cards**

Comments 28(d)-1 through 28(d)-3 would be added to provide guidance on the scope of preemption of state laws under the Fair Credit and Charge Card Disclosure Act. The comments discuss the field of preemption, explaining that it extends to any state law requiring disclosure of credit information in open-end consumer credit or charge card applications, solicitations, or renewal notices. To address the issue of state laws that apply to both consumer and business-purpose credit cards, comment 28(d)-2 would provide that such laws would be preempted to the extent they apply to applications and solicitations for, and renewals of, open-end consumer credit and charge card accounts. What effect preemption as to consumer-purpose cards would have on the state law as it relates to business-purpose cards is a matter that would be determined under state law.

#### **Home Equity Loan Consumer Protection Act Provisions**

Much of the information in the proposed commentary was contained in the supplementary information to the final rule. Although much of the proposal is self-explanatory, several provisions have been highlighted below which given additional guidance. The rules for home equity lines differ from those set forth in several existing commentary sections. Accordingly, the proposed commentary would add several cross references to the new home equity provisions where it was thought that confusion might result.

#### **Section 226.5b Requirements for Home Equity Plans**

##### **5b(a) Form of Disclosures**

Section 226.5b(a) requires most of the disclosures to be grouped together and "segregated" from unrelated information. Greater flexibility is permitted in complying with the segregation standard than currently exists for closed-end credit. The commentary would provide examples of the type of additional information that would be permitted with the required disclosures, and would discuss alternative methods for providing the early disclosures.



**5b(b) Time Disclosures**

The commentary would offer guidance on when the disclosures are required in the case of general purpose applications, applications sent through the mail or made available to the public without need for a request (such as "take-ones"). It would address the case where creditors provide a response card instead of an application in solicitation materials sent to consumers; in such cases creditors need not provide the home equity disclosures and brochure with the response card if the only action taken by the creditor upon receiving the card is to send an application to the consumer (which would then be accompanied by the disclosures and a brochure), or to telephone the consumer regarding an application. The commentary would also discuss the action that may be taken in cases where an application is denied or withdrawn within a certain time period.

**5b(c) Duties of Third Parties**

In addition to requiring creditors to provide disclosures and a brochure to consumers at an earlier time, § 226.5b(c) of the regulation imposes a limited duty on third parties who provide applications to consumers. The commentary would discuss the duty of both third parties and creditors in such cases.

**5b(d) Content of Disclosures**

Section 226.5b(d) of the regulation lists the information to be given to consumers when they receive an application for home equity plans. The commentary would provide examples of how to disclose the payment information required under § 226.5b(d)(5) for reverse mortgages. In addition, more guidance would be offered on the types of fees that must be disclosed under § 226.5b(d)(7) and (8). The commentary would provide examples of the type of fees that need not be disclosed. The commentary would clarify that third party fees that must be disclosed include premiums for property insurance if such fees are required to open a plan. It states that creditors must provide a good faith estimate of such third party fees, and may provide a range or state the fees on the basis of a typical or representative credit line.

Creditors who offer variable-rate transactions must provide information about the variable-rate feature under § 226.5b(d)(12). Many of these disclosures are similar to those required under § 226.19(b) for closed-end adjustable rate mortgages. The commentary would offer additional

guidance on how to provide the maximum payment example required under § 226.5b(d)(12)(x), explaining that creditors should ignore any discounted or premium initial rates or periodic rate limitations for purposes of stating the payment amount. The commentary also would discuss the requirement that creditors disclose the time by which the maximum rate would be imposed. In making this disclosure, creditors would assume that the rate increases as rapidly as possible under the plan, and should factor in any discounted or premium initial rates or periodic rate limitations. Separate examples would be provided for the draw and any repayment phase and, in disclosing the time at which the maximum rate could be reached, creditors would assume the index and margin shown in the last year of the historical example (or a more recent rate) is in effect at the beginning of each phase.

Additional guidance regarding the historical example required under § 226.5b(d)(12)(xi) also is provided. The commentary would clarify that creditors should assume that the \$10,000 balance upon which the disclosures are based is an advance taken at the beginning of the first billing cycle and is reduced according to the terms of the plan, and that the consumer takes no subsequent draws. Creditors would not assume that an additional advance is taken at any time, including the beginning of any repayment period. In stating the payment information that must be provided in the historical example, the commentary also would clarify that, while calculations of payments should be based on the creditor's actual payment computation formula, the creditor may assume that all months have an equal number of days.

The commentary would make clear that, in setting forth the margin, a creditor must select for each index a representative margin in preparing the historical example. Thus, the margin used must be one that was used in conjunction with the specific index.

**5b(f) Limitations on Home Equity Plans**

Section 226.5b(f) imposes substantive limitations on home equity plans. Specifically, it indicates how rate changes may be implemented, when a creditor may terminate a line and accelerate payment of the outstanding balance, and when the original terms may be changed.

The commentary to § 226.5b(f)(2) would provide guidance regarding the ability of creditors to terminate and accelerate a home equity plan. Comment 5b(f)(2)(ii)-1 would be added to clarify what constitutes failure to meet

repayment terms for purposes of termination and acceleration. Under the proposed comment, a creditor would be permitted to terminate and accelerate the balance on a home equity line if the consumer has not made a payment within 60 days of the due date. A failure to make payments also would be deemed to occur if the consumer is in default for failing to make a required payment and does not make the payment within 30 days after the creditor provides the consumer with a written notice of the missed payment and of the consequences of continued failure to pay. This comment would parallel the approach taken by several states (as well as regulations promulgated by the Federal Home Loan Bank Board dealing with certain home loans) which specify that a creditor must provide consumers with a right to cure before a creditor may accelerate payment of the balance of a debt or take other action. This provision would not override any state or other law that requires a right to cure notice, or any longer time period required by such state law.

The commentary to § 226.5b(f)(3) would be added to provide guidance on when certain changes can be made to a home equity agreement. For example, comment 5b(f)(3)-2 would provide that a creditor may pass on increases in real estate taxes, and charges for property and credit insurance imposed by third parties notwithstanding the general prohibition on changing the terms of a home equity agreement.

Comments 5b(f)(3)(vi)-1 through -10 would provide general guidance regarding a creditor's ability to suspend credit privileges and reduce the credit limit on a home equity line. Comment 5b(f)(3)(vi)-3 would clarify that charges incurred by a creditor for credit reports and appraisals to determine whether a condition justifying a freeze or reduction in the credit limit continues to exist may be passed on to the consumer. Material has been included in comment 5b(f)(3)(vi)-8 to provide examples of events that could constitute a default of a material obligation.

**5b(g) Refund of Fees**

Proposed comments 5b(g)-1 through -4 provide guidance on the requirement that creditors refund fees to consumers if the terms originally disclosed change after the disclosures are provided.

**5b(h) Imposition of Nonrefundable Fees**

Proposed comment 5b(h)-1 provides that an application fee or membership fee may be collected prior to the



consumer receiving the disclosures (for example, when an application contained in a magazine is mailed in with an application fee) only if such fees remain refundable for three days after the consumer receives the § 226.5b disclosures. This would parallel the approach taken in comment 5(b)(1)-1 for open-end plans other than home equity plans.

Proposed comment 5b(h)-2 provides that a fee may be collected after the disclosures and brochure are received by the consumer but that the fee must be refunded if, within three days of receiving the required information, the consumer decides not to enter into the agreement. The consumer in such a case must be notified that the fee is refundable for three days.

#### *Section 226.6 Initial Disclosure Statement*

Proposed comments 6(e)-1 through -4 clarify the requirement that additional disclosures be provided, with the disclosures required under § 226.6, for home equity lines of credit.

#### *Section 226.9 Subsequent Disclosure Requirements*

Comment 9(c)-1 would be revised to include a reference to the limitations on changes in terms for home equity lines of credit. Proposed comment 9(c)(1)-6 would be added to clarify that a change in terms notice is required if a creditor renews a home equity line on terms other than those agreed to originally. Comment 9(c)(3)-1 would be added to clarify that a creditor need not provide a notice if it freezes a line in circumstances that would permit it to terminate and accelerate.

#### *Section 226.15 Right of Rescission*

##### *15(a) Consumer's Right to Rescind*

Comment 15(a)(3)-2 would be revised to provide that the payment terms described in § 226.6(e)(2) for any repayment phase set forth in an initial agreement are "material disclosures" for purposes of rescission. However, neither the payment terms nor any other information given with the application disclosures would be a material disclosure for purposes of rescission.

Comment 15(a)(3)-3 would be modified to provide that the variable-rate information provided in footnote 12 to § 226.6(a)(2) for variable-rate repayment phases set forth in an initial agreement is a material disclosure. Therefore, the circumstances under which the rate may increase; any limitations on the increase; and the effects of an increase for a variable rate feature for both the draw and repayment

phase would be material disclosures for purposes of rescission.

#### *Section 226.16 Advertising*

Comment 16(b)-2 would be revised to include a reference to the special advertising rules for home equity plans. Comments 16(d)-1 through -6 would be added to clarify these rules. Comment 16(d)-2 would clarify that the rules in § 226.5b applicable to disclosing required information, including third party fees to open a line, may be relied upon in stating the information in advertisements.

#### *Section 226.30 Limitations on Rates*

Comments 30-1 and 30-11 would be revised to clarify how the home equity rules affect the requirements of § 226.30. The revisions would make clear that some types of loans may not be entered into after November 7, 1989. For example, comment 30-1 would be revised to clarify that because the home equity rules prohibit creditors from reserving a contract right to increase the rate in a fixed-rate open-end home equity plan, only such loans entered into before November 7, 1989, would be subject to a rate ceiling.

#### *Other Provisions of Regulation Z*

##### *Section 226.12 Special Credit Card Provisions*

Comment 12(a)(2)-9 would provide guidance to multiple entities that share responsibility for a card, such as where a single card has been issued by a long-distance telephone company but both that company and a local telephone company participate in matters such as authorization and billing. The proposed commentary would restrict either entity from issuing an additional credit card unless the existing card is terminated, so that, for example, the local company could not issue a new card of its own without ensuring that the original card is terminated. Comments are specifically requested, however, on a less restrictive approach, such as permitting an additional credit card on the same account to be issued by any one of the entities, provided the cardholder's total liability for unauthorized use of the original and the additional card cannot exceed the liability limit set forth in § 226.12(b).

#### *Section 226.16 Advertising*

Comment 16(b)-7 would be revised to give further guidance on terms that trigger additional disclosures. For example, the comment explains that the phrase "small monthly service charge on the remaining balance" triggers additional disclosures because the

statement discloses how the amount of the finance charge will be determined, not because the statement uses the term "small" in describing that a monthly service charge will be assessed. An additional example would be added to illustrate that a statement in an advertisement that no finance charge will be imposed for some limited period of time triggers additional disclosures because it refers to a period during which credit can be repaid without a finance charge.

#### *Section 226.17 General Disclosure Requirements*

##### *17(c) Basis of Disclosures and Use of Estimates*

Comment 17(c)(1)-11 would be revised to include "price level adjusted mortgages" (PLAMs) as an example of variable-rate transactions. (References to PLAMs would be added to the commentary to §§ 226.19 and 226.30 noting that certain provisions would be inapplicable.) PLAMs have a fixed rate of interest but provide for periodic adjustments to payments and loan balance to reflect changes in an index measuring prices or inflation. The comment would apply to transactions that have been authorized to be insured by the Department of Housing and Urban Development (HUD) in a demonstration program. HUD's regulations for PLAMs have not yet been adopted, but rules are expected to be issued before the Regulation Z commentary revisions become final in the spring of 1990.

Comment 17(c)(1)-17 would be added to provide guidance on the basis for disclosures for income tax refund anticipation loans (RALs). RALs are loans made on the basis of a consumer's anticipated tax refund. Repayment of RALs is typically made by an offset to a consumer's account, into which the consumer's tax refund has been deposited by electronic transfer. The comment provides that if repayment of the loan is required at the time the refund is deposited into the consumer's account, this date must be estimated and used in the disclosures even if the loan contains a demand clause.

#### *Section 226.19 Certain Residential Mortgage Transactions*

Comment 19(b)-3 would be added to clarify what constitutes an "intermediary agent or broker." The new comment would make clear that a legal agent of the creditor (as determined by applicable state or other law) is not an intermediary agent. The comment would also provide several factors to be



considered by the creditor when determining whether or not the transaction involves an intermediary agent. Such factors would include the percentage of applications received by a creditor from a particular broker and the amount of time and preparation the broker puts into an application.

#### List of Subjects in 12 CFR Part 226

Advertising, Banks, Banking, Consumer protection, Credit, Federal Reserve System, Finance, Penalties, Rate limitations, Truth in lending.

Certain conventions have been used to highlight the proposed revisions. New language is shown inside bold-faced arrows, while language that would be removed is set off with brackets.

(3) *Text of proposed revisions.* Pursuant to authority granted in section 105 of the Truth in Lending Act (15 U.S.C. 1604 as amended), the Board proposes to amend the official staff commentary to Regulation Z (12 CFR part 226 Supp. I) as follows:

#### PART 226 [AMENDED]

1. The authority citation for part 226 continues to read:

Authority: Truth in Lending Act, 15 U.S.C. 1604 and sec. 2, Public Law 100-583, 102 Stat. 2960; sec. 1204(c), Competitive Equality Banking Act, Public Law 100-86, 101 Stat. 552.

#### Subpart A—General

##### Section 226.2—Definitions and Rules of Construction

2. Comment 2(a)(15)–3 would be added to read as follows:

##### 2(a) Definitions

##### 2(a)(15) "Credit card"

►3. *Charge card.* Generally, charge cards are cards used in connection with an account on which outstanding balances cannot be carried from one billing cycle to another and are payable when a periodic statement is received. Under the regulation, a reference to credit cards generally includes charge cards. The term "charge card" is, however, distinguished from "credit card" in §§ 226.5a, 226.0(e), 226.9(f) and 226.23(d), and appendices G-10 through G-13. When the term "credit card" is used in those provisions, it refers to credit cards other than charge cards. ◀

3. Comment 2(a)(2)–5 would be amended by adding parenthetical material before the last sentence of the introductory paragraph to read as follows:

##### 2(a)(20) Open-end credit

5. *Reusable line.* \* \* \* (The rules in § 226.5b(f), however, limit the ability of a

creditor to suspend credit advances for home equity plans.) ◀ \* \* \*

4. Comment 2(a)(24)–6 would be added to read as follows:

##### 2(a)(24) "Residential Mortgage Transaction"

►6. *Multiple purpose transactions.* If a transaction meets the definition of this section, it is a residential mortgage transaction even if only a portion of the loan proceeds will be used to finance the acquisition of initial construction of the consumer's principal dwelling. For example, a transaction to finance the initial construction of the consumer's principal dwelling is a residential mortgage transaction even if a portion of the funds will be disbursed directly to the consumer or used to satisfy a loan for the purchase of the land on which the dwelling will be built. ◀

#### Subpart B—Open-End Credit

##### Section 226.5—General Disclosure Requirements

5. Comment 5(b)(1) would be amended by adding two sentences after the second sentence to read as follows:

##### 5(b) Time of disclosures.

##### Paragraph 5(b)(1) Initial disclosure.

1. *Disclosures before the first transaction.* \* \* \* ► The prohibition on the payment of fees other than application or refundable membership fees before initial disclosures are provided does not apply to home equity plans subject to § 226.5b. See the commentary to § 226.5b(h) regarding the collection of fees for home equity plans covered by § 226.5b. ► \* \* \*

6. Comments 5a(a)(2)–1 through 5a(g)–2 and headings would be added to read as follows:

##### ► Section 226.5a—Credit and Charge Card Applications and Solicitations

##### 5a(a) General rules

##### 5a(a)(2) Form of disclosures.

1. *Prominent location.* Certain of the required disclosures provided on or with an application or solicitation must be prominently located—that is, readily noticeable to the consumer. There are, however, no requirements that the disclosures be in any particular location or in any particular type size or typeface.

2. *Multiple accounts or varying terms.* Where a tabular format is required to be used, card issuers offering several types of accounts may disclose the various terms for the accounts in a single table or may provide a separate table for each account. Similarly, where rates or other terms vary from state to state, card issuers may list the states and the various disclosures in a single table or in separate tables.

3. *Additional information.* In general, the table containing the disclosures required by § 226.5a should contain only the information required or permitted by this section. Additional information may, however, be

presented on or with an application or solicitation outside the required table.

4. *Location of certain disclosures.* A card issuer has the option of disclosing some of the fees in § 226.5a(b)(8) through (10) in the required table and some outside the table.

5. *Terminology.* In general, § 226.5a(a)(2)(iv) requires that the terminology used for the disclosures specified in § 226.5a(b) be consistent with the used in the disclosures under §§ 226.6 and 226.7. This standard requires that the § 226.5a(b) disclosures be closed in meaning to those under §§ 226.6 and 226.7, but not necessarily identical. In addition, § 226.5a(a)(2)(i) requires that the headings, content, and format of the tabular disclosures be substantially similar, but not necessarily identical, to the tables in appendix G.A special rule applies to the grace period disclosure, however: the term "grace period" must be used, either in the heading or in the text of the disclosure.

6. *Deletion of inapplicable disclosures.* Generally, disclosures need only be given as applicable. Card issuers may, therefore, delete inapplicable headings and their corresponding boxes in the table. For example, if no transaction fee is imposed for purchases, the disclosure form may contain the "Transaction fee for purchases" heading and box, showing "none" in the box, or the heading and box may be deleted from the table. There is an exception for the grace period disclosure, however: Even if no grace period exists, that fact must be stated.

##### 5a(a)(3) Exceptions.

1. *Coverage.* Certain exceptions to the coverage of § 226.5a are stated in § 226.5a(a)(3); in addition, the requirements of § 226.5a do not apply to the following:

- Lines of credit accessed solely by account numbers
- Addition of a credit or charge card to an existing open-end plan

2. *Noncoverage of "consumer initiate" requests.* Applications provided to a consumer upon request are not covered by § 226.5a, even if the request is made in response to the card issuer's invitation to apply for a card account. To illustrate, if a card issuer invites consumers to call a toll-free number or to return a response card to obtain an application, the application subsequently sent to the consumer need not contain the disclosures required under § 226.5a. Similarly, if the card issuer invites consumers to call and make an oral application on the telephone, § 226.5a does not apply to the application made by the consumer. If, however, the card issuer calls a consumer or initiates a telephone discussion with a consumer about opening a card account and contemporaneously takes an oral application, such applications are subject to § 226.5a, specifically § 226.5a(d).

3. *General purpose applications.* The requirements of this section do not apply to general purpose applications unless the application, or material accompanying it, indicates that it can be used to open a credit or charge card account.

##### 5a(a)(5) Certain fees that vary by State.

1. *Method of disclosing range.* If the card issuer discloses a range of fees instead of



disclosing the amount of the fee imposed in each state, the range may be stated as zero (for states where no fee applies) to the amount of the highest authorized fee.

**5a(b) Required disclosures.**

**5a(b)(1) Annual percentage rate.**

1. *Periodic rate.* The periodic rate, expressed as such, may be disclosed in addition to the required disclosure of the corresponding annual percentage rate.

2. *Variable-rate accounts—definition.* For purposes of § 226.5a(b)(1), a variable-rate account exists when rate changes are part of the plan and are tied to an index or formula. (See the commentary to § 226.6(a)(2) for examples of variable-rate plans.)

3. *Variable-rate accounts—rates in effect.* For variable-rate disclosures in direct mail applications and solicitations subject to § 226.5a(c), and in applications and solicitations made available to the general public subject to § 226.5a(e), the rules concerning accuracy of the annual percentage rate are stated in § 226.5a(b)(1)(ii). For variable-rate disclosures for telephone applications and solicitations subject to § 226.5a(d), the card issuer must use the rate in effect at the time the disclosures are provided. For oral disclosures under § 226.5a(d)(1), this requires providing the annual percentage rate currently in effect. For the alternate disclosures under § 226.5a(d)(2), this requires providing the annual percentage rate in effect at the time the disclosures are mailed or delivered.

4. *Variable-rate accounts—other disclosures.* In describing how the applicable rate will be determined, the card issuer may identify the index or formula and disclose any margin or spread added to the index or formula in setting the rate. The card issuer may disclose the margin or spread as a range of the highest and lowest margins that may be applicable to the account. A disclosure of any applicable limitations on rate increases or decreases may also be included.

5. *Introductory rates—discounted rates.* If the initial rate is a temporary rate and is lower than the rate that will apply after the temporary rate expires, the card issuer must disclose the annual percentage rate that would otherwise apply to the account. In a fixed-rate account, the card issuer must disclose the rate that will apply after the introductory rate expires. In a variable-rate account, the card issuer must disclose a rate based on the index or formula applicable to the account in accordance with comment 5a(b)(1)-2. An initial discounted rate may be provided along with the rate required to be disclosed if the card issuer also discloses the time period during which the introductory rate will remain in effect.

6. *Introductory rates—premium rates.* If the initial rate is temporary and is higher than the permanently applicable rate, the card issuer must disclose the initial rate. The issuer also may disclose the rate that would otherwise apply if the issuer also discloses the time period during which the initial rate will remain in effect.

**5a(b)(2) Fees for issuance or availability.**

1. *Membership fees.* Membership fees for opening an account must be disclosed under this paragraph. A membership fee to join an organization that provides a credit or charge

card as a privilege of membership must be disclosed only if the card is issued automatically upon membership. Such a fee need not be disclosed if membership results merely in eligibility to apply for an account.

2. *Enhancements.* Fees for optional services in addition to basic membership privileges in a credit or charge card account (for example, travel insurance or card registration services) need not be disclosed under this paragraph if the basic account may be opened without paying such fees.

3. *One-time fees.* Disclosure of non-periodic fees is limited to fees related to opening the account, such as one-time membership fees. Therefore, the following need not be disclosed:

- Fees for reissuing a lost or stolen card
- Statement reproduction fees
- Application fees described in § 226.4(c)(1)

4. *Waived or reduced fees.* If fees required to be disclosed are waived or reduced for a limited time, the introductory fees or the fact of fee waivers may be provided in addition to the required fees if the card issuer also discloses how long the fees or waivers will remain in effect.

5. *Fees stated as annual amount.* Fees imposed periodically must be stated as an annual total. For example, if a fee is imposed quarterly, the disclosures would state the total amount of the fees for one year. (See, however, the commentary to § 226.9(e) with regard to disclosure of such fees in renewal notices.)

**5a(b)(4) Transaction charges.**

1. *Charges imposed by person other than card issuer.* Charges imposed by a third party, such as a seller of goods, would not be disclosed under this section; the third party would be responsible for disclosing the charge under § 226.9(d)(1).

**5a(b)(5) Grace period.**

1. *How disclosure is made.* The card issuer may, but need not, refer to the beginning or ending point of any grace period and briefly state any conditions on the applicability of the grace period. For example, the grace period disclosure might read "30 days" or "30 days from the date of the periodic statement (provided you have paid your previous balance in full by the due date)."

**5a(b)(6) Balance computation method.**

1. *Form of disclosure.* In cases where the card issuer uses a balance computation method that is not identified by name in the regulation, the disclosure should clearly explain the method in as much detail as set forth in the descriptions of balance methods in § 226.5a(g). The explanation need not be as detailed as that required for the disclosures under § 226.6(a)(3). (See the commentary to § 226.5a(g) for guidance on particular methods.)

2. *Determining the method.* In determining the appropriate balance computation method for purchases for disclosure purposes, the card issuer must assume that a purchase balance will exist at the end of any grace period. Thus, for example, if the average daily balance method will include new purchases or cover two billing cycles only if purchase balances are not paid within the grace period, the card issuer would disclose the name of the average daily balance

method but includes new purchases or covers two billing cycles, respectively. The card issuer should not assume the existence of purchase balance, however, in making other disclosures under § 226.5a(b).

**5a(b)(7) Statement on charge card payments.**

1. *Applicability and content.* The disclosure that charges are payable upon receipt of the periodic statement is applicable only to charge card accounts. In making this disclosure, the card issuer may make such modifications as necessary to more accurately reflect the circumstances of repayment under the account. For example, the disclosure might read, "Charges are due and payable upon receipt of the periodic statement and must be paid no later than 15 days after receipt of such statement."

**5a(b)(8) Cash advance fee.**

1. *Applicability.* The card issuer must disclose only those fees for a cash advance on a credit or charge card account that are finance charges under § 226.4. For example, a charge for a cash advance at an automated teller machine (ATM) would be disclosed under § 226.5a(b)(8) if no charge is imposed for ATM transactions not involving an extension of credit. (See comment 4(a)-5 for a description of such a fee.)

**5a(b)(9) Late payment fee.**

1. *Applicability.* The disclosure of the fee for a late payment includes only those fees that will be imposed for actual, unanticipated late payments. (See the commentary to § 226.4(c)(2) for additional guidance on late payment fees.)

**5a(b)(10) Over-the-limit fee.**

1. *Applicability.* The disclosure of fees for exceeding a credit limit does not include fees for other types of default or for services related to exceeding the limit. For example, no disclosure is required of fees for reinstating credit privileges or fees for the dishonor of checks on an account that, if paid, would cause the credit limit to be exceeded.

**5a(c) Direct mail applications and solicitations.**

1. *Coverage.* Applications and solicitations contained in catalogs, magazines, or other generally available publications mailed to consumers are subject to the requirements applicable to "take-ones" in § 226.5a(e), rather than the direct mail requirements of § 226.5a(c). A publication mailed to a limited list of addresses, however (for example, a catalog targeted to certain types of consumers based on prescreening), is not a "generally available" publication and therefore is subject to the direct mail rules. In addition, if a card issuer has a single application form that is sometimes used as a "take-one" (in racks in public locations, for example) and at other times mailed to consumers, the form is subject to § 226.5a(c) when sent by direct mail and to § 226.5a(e) when placed in public locations.

2. *Accuracy.* In general, disclosures in direct mail applications and solicitations must be accurate as of the time of mailing. See § 226.5a(b)(1)(ii), however, for special rules concerning the accuracy of the annual percentage rate disclosure on a variable-rate account.



**5a(d) Telephone applications and solicitations.**

1. *Coverage.* This paragraph applies if:
- A telephone conversation between a card issuer and consumer may result in the issuance of a card as a consequence of an issuer-initiated offer to open an account for which the issuer does not require any application (that is, a "preapproved" telephone solicitation).
  - The card issuer initiates the contact and at the same time takes application information over the telephone.
- This paragraph does not apply to:
- Telephone applications initiated by the consumer.

• Situations where no card will be issued—because, for example, the consumer indicates that he or she does not want the card, or the card issuer decides either during the telephone conversation or later not to issue the card.

**5a(e) Applications and solicitations made available to general public.**

1. *Coverage.* Applications and solicitations made available to the general public include what are commonly referred to as "take-one" applications typically found at counters in banks and retail establishments, as well as applications contained in catalogs, magazines and other generally available publications. In the case of credit unions, this paragraph applies to applications and solicitations to open card accounts made available to those in the general field of membership.

2. *Cross-selling.* If a card issuer invites a consumer to apply for a credit or charge card (for example, where the issuer engages in cross-selling), an application provided to the consumer at the consumer's request is not considered an application made available to the general public and therefore is not subject to § 226.5a(e). For example, the following are not covered:

- A consumer applies in person for a card loan at a financial institution and the loan officer invites the consumer to apply for a credit or charge card account; the consumer accepts the invitation.
- An employee of a retail establishment, in the course of processing a sales transaction using a bank credit card, asks a customer if he or she would like to apply for the retailer's credit or charge card; the customer responds affirmatively.

3. *Toll-free telephone number.* If a card issuer, in complying with any of the disclosure options of § 226.5a(e), provides a telephone number for consumers to call to obtain credit information, the number must be toll-free for nonlocal calls made from an area code other than the one used in the card issuer's dialing area. Alternatively, a card issuer may provide any telephone number that allows a consumer to call for information and reverse the telephone charges.

**5a(e)(1) Disclosure of required credit information.**

1. *Date of printing.* Disclosure of the month and year fulfills the requirements to disclose the date an application was printed.

2. *Form of disclosures.* The disclosures specified in § 226.5a(e) (i), (ii) and (iii) may appear either in or outside the table containing the required credit disclosures.

**5a(e)(2) Inclusion of certain initial disclosures.**

1. *Accuracy of disclosures.* The disclosures required by § 226.5a(e)(2) generally must be current as of the time they are made available to the public. Disclosures are considered to be made available at the time they are placed in public locations (in the case of "take-ones") or mailed to consumers (in the case of publications).

2. *Accuracy—exception.* If a card issuer discloses all the information required by § 226.5a(e)(1)(ii) on the application or solicitation, the disclosures under § 226.5a(e)(2) need only be current as of the date of printing.

3. *Combining disclosures.* Disclosure of the information required under this paragraph does not satisfy the initial disclosure requirements in § 226.6 of the regulation. If, however, the card issuer in complying with this paragraph provides all the applicable disclosures required under § 226.6, in a form that the consumer may keep and in accordance with the other requirements for that section, the issuer will have satisfied the initial disclosure requirements under § 226.6 as well as the disclosure requirements for § 226.5a(e)(2).

**5a(e)(3) No disclosure of credit information.**

1. *When disclosure option available.* A card issuer may use this option only if the issuer does not include on or with the application or solicitation any statement that refers to the credit disclosures required by § 226.5a(b). Statements such as "no annual fee," "low interest rate," "favorable rates," and "low costs" are deemed to refer to the required credit disclosures and, therefore, may not be included on or with the solicitation or applications, if the card issuer chooses to use this option.

**5a(e)(4) Prompt response to requests for information.**

1. *Prompt disclosure.* Information is promptly disclosed if it is given within 30 days of a consumer's request for information but in no event later than delivery of the credit or charge card.

2. *Information disclosed.* When a consumer requests credit information, card issuers need not provide all the required credit disclosures in all instances. For example, if disclosures have been provided in accordance with § 226.5a(e)(1) or (2), and a consumer calls or writes a card issuer to obtain information about changes in the disclosures, the issuer need only provide the items of information that have changed from those previously disclosed on or with the application or solicitation. If a consumer requests information about particular items, the card issuer need only provide the requested information. If, however, the card issuer has made disclosures in accordance with the option in § 226.5a(e)(3), and a consumer calls or writes the card issuer requesting information about costs, all the required disclosure information must be given.

3. *Manner of response.* A card issuer's response to a consumer's request for credit information may be provided orally or in writing, regardless of the manner in which the consumer's request is received by the issuer. Furthermore, the card issuer may provide the information listed in either § 226.5a(e)(1) or (2). Information provided in writing need be in a tabular format.

**5a(f) Special charge card rule—Card issuer and person extending credit not the same person.**

1. *Duties of charge card issuer.* Although the charge card issuer is not required to disclose information about the underlying open-end credit plan if the card issuer meets the conditions set forth in § 226.5a(f), the card issuer must disclose the information relating to the charge card plan itself.

2. *Duties of creditor maintaining open-end plan.* Section 226.5a does not impose disclosure requirements on a creditor that maintains the underlying open-end credit plan. This is the case even though the creditor offering the open-end credit plan may be considered an agent of the charge card issuer (See comment 2(a)(7)-1.)

3. *Form of disclosures.* The disclosures required by § 226.5a(f) may appear either in or outside the table containing the required credit disclosures, in circumstances where tabular format is required.

**5a(g) Balance computation methods defined.**

1. *Daily balance method.* Card issuers using the daily balance method may disclose it using the name "average daily balance (including new purchases)" or "average daily balance (excluding new purchases)," as appropriate. Alternatively, such card issuers may explain the method. (See comment 7(e)-5 for a discussion of the daily balance method.)

2. *Two-cycle average daily balance methods.* The "two-cycle average daily balance" methods described in § 226.5a(g)(2)(i) and (ii) include those methods in which the balances for two billing cycles may be added together to compute the finance charge. The method is a "two-cycle average daily balance" even if the finance charge will be based on both the current and prior cycle balances only under certain circumstances, such as when purchases during a prior cycle were carried over into the current cycle and no finance charge was assessed during the prior cycle. Furthermore, the method is a "two-cycle average daily balance method" if the balances for both the current and prior cycles are average daily balances, even if those balances are figured differently. For example, the name "two-cycle average daily balance (excluding new purchases)" should be used to describe a method in which the finance charge for the current cycle, figured as an average daily balance excluding new purchases, will be added to the finance charge for the prior cycle, figured as an average daily balance of only new purchases during that prior cycle. ◀

7. Comments 5b-1 through 5b(h)-3 and headings would be added to read as follows:

**► Section 226.5b—Requirements for home equity plans**

1. *Coverage.* This section applies to all open-end credit plans secured by the consumer's "dwelling," as defined in § 226.2(a)(19), and is not limited to plans secured by the consumer's principal dwelling. (See the commentary to § 226.3(a), which discusses whether transactions are consumer or business-purpose credit, for guidance on



whether a home equity plan is subject to Regulation Z.)

**2. Disclosure of repayment phase—applicability of requirements.** Some plans provide in the initial agreement for a period during which no further draws may be taken and repayment of the amount borrowed is made. All of the applicable disclosures in this section must be given for the repayment phase. Thus, for example, creditors must provide payment information about the repayment phase as well as about the draw period, as required by § 226.5b(d)(5). If the rate that will apply during the repayment phase is fixed at a known amount, the creditor must provide an APR under § 226.5b(d)(6) with regard to that phase. If, however, a creditor uses an index to determine the rate that will apply at the time of conversion—even if the rate during the repayment phase will be fixed—creditors must provide the information in § 226.5b(d)(12), as applicable.

**3. Disclosure of repayment phase—timing options.** Creditors have a choice about when the disclosure of the terms for the repayment phase may be given. Creditors may provide the information at the same time the application disclosures for the draw period required by § 226.5b are given to the consumer. As an alternative, creditors may disclose only the basic payment terms information under § 226.5b(d)(5)(i) and (ii) with the application disclosures, and defer the other disclosures about the repayment phase until the end of the draw period. Disclosures must be based on the information available at that later time. (See model form G-14C.) In either case, creditors are required to provide information about the repayment phase set forth in § 226.6(e)(2).

**4. Repayment phase—applicability of closed-end provisions and substantive rules.** Creditors providing disclosures about a repayment phase under §§ 226.5b and 226.6, whether at the time an application is provided or at the end of the draw period, are not required to provide additional disclosures under Subpart C of the regulation for closed-end credit. Creditors are required to continue providing periodic statements under § 226.7 and to comply with the other open-end credit provisions of subpart B of the regulation, including the substantive provisions in § 226.5b(f). If the original home equity plan agreement does not call for a repayment phase to follow the draw period, and the consumer and creditor later enter into a closed-end agreement to repay the outstanding balance, the creditor must give closed-end credit disclosures pursuant to subpart C. In such cases, the open-end provisions in subpart B, including the substantive rules, do not apply to the closed-end credit transaction.

**5. Spreader clause.** When a creditor holds a mortgage or deed of trust on the consumer's dwelling and that mortgage or deed of trust contains a "spreader clause" (also known as a "dragnet" or cross-collateralization clause), subsequent occurrences such as the opening of a plan are subject to the rules applicable to home equity plans to the same degree as if a security interest were taken directly to secure the open-end plan, unless the creditor effectively waives its security interest under

the spreader clause with respect to the subsequent open-end credit extensions.

**5b(a) Form of disclosures.**

**5b(a)(1) General.**

**1. Written disclosures.** The disclosures required under this section must be clear and conspicuous and in writing, but need not be in a form the consumer can keep. (See the commentary to § 226.6(e) for special rules when disclosures required under § 226.5b(d) are given in a retainable form.)

**2. Disclosure of annual percentage rate—more conspicuous requirement.** As provided in § 226.5(a)(2), when the term "annual percentage rate" is disclosed with a number, it must be more conspicuous than other required disclosures.

**3. Segregation of disclosures.** While the disclosures must be grouped together and segregated from all unrelated information, the creditor is permitted to include information that explains or expands on the required disclosures, including, for example:

- Any prepayment penalty
- The manner in which a substitute index may be chosen
- Actions the creditor may take short of terminating and accelerating an outstanding balance
- Renewal terms
- Rebate of fees

An example of information that does not explain or expand on the required disclosures and cannot be included is the creditor's underwriting criteria, although the creditor could provide such information separately from the required disclosures.

**4. Method of providing disclosures.** A creditor may provide a single disclosure form for all of its home equity plans, as long as the disclosure describes all aspects of the plans. For example, if the creditor offers several payment options, all such options must be disclosed. (See, however, the commentary to § 226.5b(d)(5)(iii), § 226.5b(d)(12)(x), and § 226.5b(d)(12)(xi) for disclosure requirements relating to these provisions.) If any aspects of a plan are linked together, the creditor must disclose clearly the relationship of the terms to each other. For example, if the consumer can only obtain a particular payment option in conjunction with a certain variable-rate feature, this fact must be disclosed. A creditor has the option of providing separate disclosure forms for multiple options or variations in features. For example, a creditor that offers different payment options for the draw period has the option of creating separate disclosure forms for the two payment options. The creditor using this alternative, however, must include a statement on each disclosure form that the consumer should ask about the creditor's other home equity programs. This disclosure is required only for those programs generally available to the public. Thus, if the only other programs available are employee preferred-rate plans, for example, the creditor would not have to provide this statement. A creditor who receives a request for information about other available programs must provide the additional disclosures as soon as reasonably possible.

**5b(a)(2) Precedence of Certain Disclosures.**

**1. Precedence rule.** The list of conditions provided at the creditor's option under

§ 226.5b(d)(4)(iii) need not precede the other disclosures.

**5b(b) time of disclosures.**

**1. Mail and telephone applications.** If the creditor sends applications through the mail, the disclosures and a brochure must accompany the application. If an application is taken over the telephone, the disclosures and brochure may be delivered or mailed within three business days of taking the application. If an application is mailed to the consumer following a telephone request, however, the creditor also must send the disclosures and a brochure along with the application.

**2. General purpose applications.** the disclosures and a brochure need not be provided when a general purpose application is given to a consumer unless the application or materials accompanying it indicate that it can be used to apply for a home equity plan. In all cases where an application is provided in response to a consumer's specific inquiry about a home equity plan, the disclosures and a brochure must accompany the application. In such instances, the disclosures and brochure must be provided whether or not the application or its accompanying materials specify that the application can be used for a home equity plan. (See the commentary to § 226.5b(h) regarding the imposition of a nonrefundable fee.)

**3. Publicly-available applications.** Some creditors make applications, such as "take-ones," available without the need for a consumer to request them. These applications must be accompanied by the disclosures and a brochure, such as by attaching the disclosures and brochure to the application form.

**4. Response cards.** A creditor may solicit consumers for its home equity plan by mailing a "response card" which the consumer returns to the creditor to indicate interest in the plan. The creditor need not always provide the disclosures and brochure in the solicitation materials. If the only action taken by the creditor upon receipt of the response card is to send the consumer an application form or to telephone the consumer to discuss the plan, the creditor need not send the disclosures and brochure with the response card.

**5. Denial or withdrawal of application.** In situations where footnote 10a permits the creditor a three-day delay in providing disclosures and the brochure, if the creditor determines within that period that an application will not be approved, the creditor need not provide the consumer with the disclosures or brochure. If the consumer withdraws the application within this three-day period, the creditor also need not provide the disclosures or brochure.

**6. Intermediary agent or broker.** In determining whether or not an application involves an "intermediary agent or broker" as discussed in footnote 10a, creditors should consult the provisions in comment 19(b)-3.

**5b(c) Duties of third parties.**

**1. Disclosure requirements.** Although third parties who give applications to consumers for home equity plans must provide the brochure required under § 226.5b(e) in all cases, such persons need provide disclosures



only in certain instances. A third party has no duty to obtain disclosures about a creditor's home equity plan or to create a set of disclosures based on what it knows about a creditor's plan. If, however, a creditor provides the third party with disclosures along with its application form, the third party must give the disclosures to the consumer with the application form. If an intermediary agent or broker takes an application over the telephone or receives an application contained in a magazine or other publication, footnote 10a permits such a person to mail the disclosures and brochure within three business days of receipt of the application. (See the commentary to § 226.5b(h) about imposition of a nonrefundable fee.)

#### 5b(d) Content of disclosures.

1. *Disclosures given as applicable.* The disclosures required under this section need be made only as applicable. Thus, for example, if negative amortization cannot occur in a home equity plan, a reference to it need not be given.

#### 5b(d)(1) Retention of information

1. *When disclosures not required.* The creditor need not disclose that the consumer should make or otherwise retain a copy of the disclosures if they are retainable—for example, if the disclosures are not part of the application that must be returned to the creditor to apply for the plan.

#### 5b(d)(2) Conditions for disclosed terms.

##### Paragraph 5b(d)(2)(i)

1. *Guaranteed terms.* The requirement that the creditor disclose the time by which an application must be submitted to obtain the disclosed terms does not require the creditor to guarantee any terms. If a creditor chooses not to guarantee any terms, it must disclose that all of the terms are subject to change prior to opening the plan. The creditor also is permitted to guarantee some terms and not others, but must indicate which terms are subject to change.

2. *Date for obtaining disclosed terms.* The creditor may disclose either a specific date or a time period for obtaining the disclosed terms. If the creditor discloses a time period, the consumer must be able to determine from the disclosure the specific date by which an application must be submitted to obtain any guaranteed terms. For example, the disclosure might read, "to obtain the following terms, you must submit your application within 60 days after the date appearing on this disclosure," provided the disclosure form also shows the date.

##### Paragraph 5b(d)(2)(ii)

1. *Relation to other provisions.* Creditors should consult the rules in § 226.5b(g) regarding refund of fees.

#### 5b(d)(4) Possible actions by creditor.

##### Paragraph 5b(d)(4)(i)

1. *Fees imposed upon termination.* The creditor is not required to disclose that fees are imposed when the plan expires in accordance with the agreement. In addition, fees associated with collection of the debt, such as attorneys fees and court costs, as well as any increase in the annual percentage rate linked to the consumer's failure to make payments, need not be disclosed. The

creditor, however, would have to provide this disclosure if such fees as penalty or prepayment fees may be imposed upon termination. The actual amount of the fee need not be disclosed.

##### Paragraph 5b(d)(4)(ii)

1. *Request by consumer.* If the creditor receives a request from a consumer prior to the opening of a plan for information about possible actions that the creditor may take concerning the plan, the creditor must provide this information as soon as reasonably possible after the request.

##### Paragraph 5b(d)(4)(iii)

1. *Disclosure of conditions.* In making this disclosure, the creditor may provide a highlighted copy of the document that contains such information, such as the contract or security agreement. The relevant items must be distinguished from the other information contained in the document. For example, the creditor may provide a cover sheet that specifically points out which contract provisions contain the information, or may mark the relevant items on the document itself. As an alternative to disclosing the conditions in this manner, the creditor may simply describe the conditions using the language in § 226.5b(f)(2) and § 226.5b(f)(3)(vi). In describing specified changes that may be implemented during the plan, the creditor may provide a disclosure such as: "Our agreement permits us to make certain changes to the terms of the line at specified times or upon the occurrence of specified events."

2. *Form of disclosure.* The list of conditions under § 226.5b(d)(4)(iii) may appear with the segregated disclosures or apart from them. If the creditor elects to provide the list of conditions with the segregated disclosures, it need not comply with the precedence rule in § 226.5b(a)(2).

#### 5b(d)(5) Payment Terms.

##### Paragraph 5b(d)(5)(i)

1. *Length of the plan.* The combined length of the draw period and any repayment period need not be stated. If the length of the plan is indefinite, the creditor must state that fact.

2. *Renewal provisions.* If, under the credit agreement, a creditor retains the right to review a line at the end of the specified draw period and determine whether to renew or extend the draw period of the plan, the possibility of renewal or extension—regardless of the likelihood of renewal—should be ignored for purposes of the disclosures. For example, if an agreement provides that the draw period is five years and that the creditor may renew the draw period for an additional five years, the possibility of renewal should be ignored and the draw period should be considered five years. (See the commentary accompanying § 226.9(c)(1) dealing with change in terms requirements.)

##### Paragraph 5b(d)(5)(ii)

1. *Determination of the minimum periodic payment.* This disclosure must reflect how the minimum periodic payment is determined, but need only describe the principal and interest components of the payment. Other charges that may be part of the payment (as well as the balance computation method)

may, but need not, be described under this provision.

2. *Fixed rate and term payment options during draw period.* If the home equity plan permits the consumer to pay off all or part of the balance during the draw period at a fixed rate (rather than a variable rate) and over a specified time period, this feature must be disclosed. To illustrate, a variable-rate plan may permit a consumer to elect during a ten-year draw period to repay all or a portion of the balance over a three-year period at a fixed rate. The creditor must disclose the rules relating to this feature including the period during which the option can be selected, the length of time over which repayment can occur, any fees imposed for such a feature, and the specific rate or the index and margin that will apply upon exercise of this choice. For example, the rate disclosure might state, "If you choose to convert any portion of your balance to a fixed rate, the rate will be the highest prime rate published in the 'Wall Street Journal' that is in effect at the date of conversion plus 2 percentage points." If the fixed rate is to be determined according to an index, it must be one that is outside the creditor's control and is publicly available in accordance with § 26.5b(f)(1). The effect of exercising the option should not be reflected elsewhere in the disclosures, such as in the historical example required in § 26.5b(d)(12)(xi).

3. *Balloon payments.* In programs where the occurrence of a balloon payment is uncertain or unlikely but possible, the creditor must disclose the possibility of a balloon payment. In such cases, the disclosure might read, "Your minimum payment may not fully repay the principal outstanding on your line. You may be required to pay the entire outstanding balance in a single payment." In programs where a balloon payment will occur, such as programs with interest-only payments during the draw period and no repayment period, the disclosures must reflect that fact. For example, the disclosure might read, "Your minimum payment will not fully repay the principal that is outstanding on your line. You will be required to pay the entire outstanding balance in a single payment." In making this disclosure, the creditor is not required to use the term "balloon payment." The creditor also is not required to disclose the amount of the balloon payment. (See, however, the requirement under § 226.5b(d)(5)(iii).) The balloon payment disclosure does not apply in cases where repayment of the entire outstanding balance would occur only as a result of termination and acceleration. The creditor also need not make a disclosure about balloon payments if the final payment could not be more than twice the amount of other minimum payments under the plan.

##### Paragraph 5b(d)(5)(iii)

1. *Minimum periodic payment example.* In disclosing the payment example, the creditor may assume that the credit limit as well as the outstanding balance is \$10,000 if such an assumption is relevant to calculating payments. (If the creditor only offers lines of credit for less than \$10,000, the creditor may assume an outstanding balance of \$5,000 instead of \$10,000 in making this disclosure.)



The example should reflect the payment comprised only of principal and interest, and can assume that all months have an equal number of days. Creditors may provide an additional example reflecting other charges which may be included in the payment, such as credit insurance premiums. For variable-rate plans, this example must be based on the last rate in the historical example required in § 226.5b(d)(12)(xi), or a more recent rate. A discounted rate may not be considered a more recent rate in calculating this payment example for either variable- or fixed-rate plans.

**2. Representative examples.** In plans that have multiple payment options within the draw period or within any repayment period, the creditor may provide representative examples as an alternative to providing examples for each payment option. The creditor may elect to provide representative payment examples based on three categories of payment options. The first category consists of plans that permit minimum payment of only accrued finance charges ("interest only" plans). The second category includes plans in which a fixed percentage or a fixed fraction of the outstanding balance or credit limit (for example, 2 percent of the balance of 1/180th of the balance) is used to determine the minimum payment. The third category includes all other types of minimum payment options, such as a specified dollar amount plus any accrued finance charges. Creditors may classify their minimum payment arrangements within one of these three categories even if other features exist, such as varying lengths of a draw or repayment period, required payment of past due amounts, late charges and minimum dollar amounts. The creditor may use a single example within each category to represent the payment options in that category. For example, if a creditor permits minimum payments of 1%, 2%, 3% or 4% of the outstanding balance, it may pick one of these four options and provide the example required under § 226.5b(d)(5)(iii) for that option alone. The example used to represent a category must be an option commonly chosen by consumers, or a typical or representative example. (See the commentary to § 226.5b(d)(12)(x) and § 226.5b(d)(12)(xi) for a discussion of the use of representative examples for making those disclosures. Creditors choosing to use a representative example within each category must use the same example for purposes of the disclosure under § 226.5b(d)(5)(iii), § 226.5b(d)(12)(x), and § 226.5b(d)(12)(xi).) Separate examples must be given for the draw and repayment periods unless the payments are determined the same way during both periods. In setting forth payment examples for any repayment period under this section (and the historical example under § 226.5b(d)(12)(xi)), creditors should assume a \$10,000 advance is taken at the beginning of the draw period and is reduced according to the terms of the plan. Creditors should not assume an additional advance is taken at any time, including at the beginning of any repayment period. Creditors may use representative examples under § 226.5b(d)(5) only with respect to the payment example required under paragraph (d)(5)(iii). Creditors must provide a full

narrative description of all payment options under § 226.5b(d)(5) (i) and (ii).

**3. Reverse mortgages.** Reverse mortgages, also known as reverse annuity or home equity conversion mortgages, in addition to permitting the consumer to obtain advances, may involve the disbursement of monthly advances to the consumer for a fixed period or until the occurrence of an event such as the consumer's death. Repayment of the reverse mortgage (generally a single payment of principal and accrued interest) may be required to be made at the end of the disbursements or, for example, upon the death of the consumer. In disclosing these plans, creditors must apply the following rules, as applicable:

- If the reverse mortgage has a specified period for draws and disbursements but repayment is due only upon occurrence of a future event such as the death of the consumer, the creditor must assume that disbursements will be made until they are scheduled to end. The creditor must assume repayment will occur when disbursements end (or within a period following the final disbursement which is not longer than the regular interval between disbursements). This assumption should be used even though repayment may occur before or after the disbursements are scheduled to end. In such cases, the creditor may include a statement such as "The disclosures assume that you will repay the line at the time the draw period and our payments to you end. As provided in your agreement, your repayment may be required at a different time." The single payment should be considered the "minimum periodic payment" and consequently would not be treated as a balloon payment. The example of the minimum payment under § 226.5b(d)(5)(iii) should assume a single \$10,000 draw.

- If the reverse mortgage has neither a specified period for advances or disbursements nor a specified repayment date and these terms will be determined solely by reference to future events, including the consumer's death, the creditor may assume that the draws and disbursements will end upon the consumer's death (estimated by using actuarial tables, for example) and that repayment will be required at the same time (or within a period following the date of the final disbursement which is not longer than the regular interval for disbursements). Alternatively, the creditor may base the disclosures upon another future event it estimates will be most likely to occur first. (If terms will be determined by reference to future events which do not include the consumer's death, the creditor must base the disclosures upon the occurrence of the event estimated to be most likely to occur first.)

- In making the disclosures, the creditor must assume that all draws and disbursements and accrued interest will be paid by the consumer. For example, if the note has a non-recourse provision providing that the consumer is not obligated for an amount greater than the value of the house, the creditor must nonetheless assume that the full amount to be drawn or disbursed will be repaid. In this case, however, the creditor may include a statement such as "The

disclosures assume full repayment of the amount advanced plus accrued interest, although the amount you may be required to pay is limited by your agreement."

- Some reverse mortgages provide that some or all of the appreciation in the value of the property will be shared between the consumer and the creditor. The appreciation feature must be disclosed in accordance with § 226.5b(d)(12).

#### 5b(d)(6) Annual Percentage Rate

**1. Preferred-rate plans.** If a creditor offers a preferential fixed-rate plan in which the rate will increase a specified amount upon the occurrence of a specified event, the creditor must disclose the specific amount the rate will increase.

#### 5b(d)(7) Fees Imposed by Creditor

**1. Applicability.** The fees referred to in § 226.5b(d)(7) include items such as application fees, points, annual fees, transaction fees, and fees imposed for converting to the repayment phase provided for in the original agreement. This disclosure includes any fees that are imposed by the creditor to use or maintain the plan even if such fees are passed on by the creditor to a third party. For example, if a creditor annually obtains a credit report on the consumer and requires the consumer to pay this fee to the creditor or directly to the third party, the fee must be specifically stated. Third party fees to open the plan that are initially paid by the consumer to the creditor may be included in this disclosure or in the disclosures under § 226.5b(d)(8).

**2. Manner of describing fees.** Charges may be stated as an estimated dollar amount for each fee, or as a percentage of a typical or representative amount of credit. The creditor may provide a stepped fee schedule in which a fee will increase a specified amount at a specified date. (See the discussion contained in the commentary to § 226.5b(f)(3)(i).)

**3. Fees not required to be disclosed.** Fees imposed for late payment, stopping payment, returned checks, exceeding the credit limit, or closing out an account do not have to be disclosed under this section. Credit report and appraisal fees imposed to investigate whether a condition permitting a freeze continues to exist—as discussed under § 226.5b(f)(3)(vi)—are not required to be disclosed under this section or § 226.5b(d)(8).

**4. Rebates of closing costs.** If closing costs are imposed they must be disclosed, regardless of whether such costs may be rebated later (for example, rebated to the extent of any interest paid during the first year of the plan).

#### 5b(d)(8) Fees Imposed by Third Parties to Open a Plan

**1. Applicability.** Section 226.5b(d)(8) applies only to fees imposed by third parties to open the plan. Thus, for example, this section does not require disclosure of a fee imposed by a government agency at the end of a plan to release a security interest. Fees to be disclosed include appraisal, credit report, government agency, and attorney fees as well as premiums for property insurance required by the creditor.



2. *Itemization of third party fees.* In all cases creditors must state third party fees as a single dollar amount or a range. A creditor has two options with regard to providing more detailed information about third party fees. Creditors may provide a statement that the consumer may request more specific cost information about third party fees from the creditor. Upon receiving a consumer's request for such an itemization prior to the consumer opening the plan, the creditor must provide the information as soon as reasonably possible. As an alternative to including this statement, creditors may provide an itemization of such fees (by type and amount) with the early disclosures.

3. *Manner of describing fees.* A good faith estimate of the amount of fees must be provided. Creditors may provide a range for such fees or state the fees on the basis of a typical or representative amount of credit. Fees may be expressed on a unit cost basis, for example, \$5 per \$1,000 of credit.

4. *Rebates of third party fees.* Even if fees imposed by third parties may be rebated, they must be disclosed. (See the commentary to § 226.5b(d)(7).)

#### 5b(d)(10) Transaction Requirements

1. *Applicability.* A limitation on automated teller machine usage need not be disclosed under this paragraph, unless that is the only means by which the consumer can obtain funds.

#### 5b(d)(12) Disclosure for Variable-Rate Plans

1. *Variable-rate provisions.* Model forms G-14A, G-14B and G-14C provide illustrative guidance on the variable-rate rules.

#### Paragraph 5b(d)(12)(iv)

1. *Determination of annual percentage rate.* If the creditor adjusts its index through the addition of a margin, the disclosure might read, "Your annual percentage rate is based on the index plus a margin." The creditor is not required to disclose the specific value of the margin.

#### Paragraph 5b(d)(12)(viii)

1. *Preferred-rate provisions.* This paragraph requires disclosure of preferred-rate provisions, where the rate will increase upon the occurrence of some event, such as the borrower-employee leaving the creditor's employ or the consumer closing an existing deposit account with the creditor.

#### Paragraph 5b(d)(12)(ix)

1. *Periodic limitations on increases in rates.* The creditor must disclose any annual limitations on increases in the annual percentage rate. If the creditor bases its rate limitation on 12 monthly billing cycles, such a limitation should be treated as an annual cap. Rate limitations imposed on less than an annual basis must be stated in terms of a specific amount of time. For example, if the creditor imposes rate limitations on only a semiannual basis, this must be expressed as a six-month time period. If the creditor does not impose periodic limits (annual or shorter) on rate increases, the fact that there are no annual rate limitations must be stated.

2. *Maximum limitations on increases in rates.* The maximum annual percentage rate that may be imposed under each payment

option over the term of the plan (including the draw period and any repayment period provided for in the initial agreement) must be provided. The creditor may disclose this rate as a specific number (for example, 18 percent) or as a specific amount above the initial rate. For example, this disclosure might read, "The maximum annual percentage rate that can apply to your line will be 5 percentage points above your initial rate." If the creditor states the maximum rate as a specific amount above the initial rate, the creditor must include a statement that the consumer should inquire about the rate limitations that are currently available. If an initial discount is not taken into account in applying maximum rate limitations, that fact must be disclosed. If separate overall limitations apply to rate increases resulting from events such as the exercise of a fixed-rate conversion option or leaving the creditor's employ, those limitations also must be stated. Limitations do not include legal limits in the nature of usury or rate ceilings under state or federal statutes or regulations.

3. *Form of disclosures.* The creditor need not disclose each periodic or maximum rate limitation that is currently available. Instead, the creditor may disclose the range of the lowest and highest periodic and maximum rate limitations that may be applicable to the creditor's home equity plans. Creditors using this alternative must include a statement that the consumer should inquire about the rate limitations that are currently available.

#### Paragraph 5b(d)(12)(x)

1. *Maximum rate payment example.* In calculating the payment creditors should assume the maximum rate is in effect. Any discounted or premium initial rates or periodic rate limitations should be ignored for purposes of this disclosure. If a range is used to disclose the maximum cap under § 226.5b(d)(12)(ix), the highest rate in the range must be used for this disclosure. As an alternative to making disclosures based on each payment option, the creditor may choose a representative example within the three categories of payment options upon which to base this disclosure. (See the commentary to § 226.5b(d)(5).) However, separate examples must be provided for the draw period and for any repayment period unless the payment is determined the same way in both periods. Creditors should calculate the example for the repayment period based on an assumed \$10,000 balance. (See the commentary to § 226.5b(d)(5) for a discussion of the circumstances in which a creditor may use a lower outstanding balance.)

2. *Time the maximum rate could be reached.* In stating the date or time by which the maximum rate could be reached creditors should assume the rate increases as rapidly as possible under the plan. In calculating when this date or time could be reached, creditors should factor in any discounted or premium initial rates or periodic rate limitations. This disclosure must be provided for the draw phase and any repayment phase. In calculating this disclosure for the draw and any repayment phase, creditors should assume the index and margin shown in the last year of the historical example (or a more

recent rate) is in effect at the beginning of each phase.

#### Paragraph 5b(d)(12)(xi)

1. *Index values.* Index values and annual percentage rates must be shown for the entire 15 years of the historical example and must be based on the most recent 15 years. The example must be updated annually to reflect the most recent 15 years of index values. If the length of the plan is less than 15 years, payments need only be shown for the number of years in the term, though all significant plan terms such as rate limitations must be shown for the entire 15 years. If the values for an index have not been available for 15 years, a creditor need only go back as far as the values have been available in giving a history and payment example and may start the example at the year for which values are first available. The creditor should assume that the \$10,000 balance is an advance taken at the beginning of the first billing cycle and is reduced according to the terms of the plan, and that the consumer takes no subsequent draws. As discussed in the commentary to § 226.5b(d)(5), creditors should not assume an additional advance is taken at the beginning of any repayment period. If applicable, the creditor may assume the \$10,000 is both the advance and the credit limit. (See the commentary to § 226.5b(d)(5) for a discussion of the circumstances in which a creditor may use a lower outstanding balance.)

2. *Selection of index values.* The historical example must reflect the method of choosing index values for the plan. For example, if an average of index values is used in the plan, averages would be used in the history, but if an index value as of a particular date is used, a single index value would be shown. The creditor is required to assume one date within a year (or one period, if an average is used) on which to base the history of index values for each loan plan. The creditor may choose to use index values as of any date or period as long as the index value as of this date or period is used for each year in the index history. Only one index value per year need be shown, even if the plan provides for adjustments to the annual percentage rate or payment more than once in a year. In such cases, the creditor can assume that the index rate remained constant for the full year for the purpose of calculating the annual percentage rate and payment.

3. *Calculation of payments.* The payment figures in the historical example must reflect all significant program terms. For example, features such as rate and payment caps, a discounted initial rate, negative amortization, and rate carryover must be taken into account in calculating the payment figures if these would have applied to the plan. A creditor need show only one payment per year in the example, even though payments may vary during a year. (The calculations should be based on the actual payment computation formula, although the creditor may assume that all months have an equal number of days.) The creditor may assume that payments are made on the last day of the billing cycle, the billing date or the payment due date, but must be consistent in the manner in which the period used to illustrate



payment information is selected. Information about balloon payments may, but need not, be reflected in the example.

4. *Representatives payment options.* The creditor need not provide an historical example for all of its various payment options, but may select a representative payment option within each of the three categories of payments upon which to base its disclosure. (See the commentary to § 226.5(d)(5).)

5. *Reverse mortgages.* The historical example for reverse mortgages would reflect 15 years of index values and annual percentage rates, but the payment column would be blank until the year that the single payment will be made, assuming that payment is estimated to occur within 15 years. (See the commentary to § 226.5(d)(5) for a discussion of reverse mortgages.)

6. *Rate limitations.* Both periodic and maximum rate limitations must be reflected in the historical example. If ranges of rate limitations are provided under § 226.5(d)(12)(ix), the highest periodic and maximum rates provided in those ranges must be used in the example. Rate limitations that may apply more often than annual should be treated as if they are annual limitations. For example, if a creditor imposes a 1% cap every six months, this should be reflected in the example as if it were a 2 percent annual cap.

7. *Selection of margin.* A value for the margin must be assumed in order to prepare the example. A creditor must select a representative margin that it has used with the index during the six months preceding preparation of the disclosures and state that the margin is one that it has used recently. The margin selected may be used until the creditor annually updates the disclosure form to reflect the most recent 15 years of index values.

8. *Amount of discount or premium.* In reflecting any discounted or premium initial rate, the creditor may select a discount or premium that has been used during the six months preceding preparation of the disclosures, and should disclose that the discount or premium is one that the creditor has used recently. The discount or premium should be reflected in the example for as long as it is in effect. The creditor may assume that a discount or premium that would have been in effect for any part of a year was in effect for the full year for purposes of reflecting it in the historical example.

9. *Disclosures for repayment period.* In providing the historical example, creditors that choose to provide disclosures about the repayment period as part of the disclosures provided with an application (see the commentary to § 226.5b for a discussion of the options available on the giving of such disclosures) must reflect all features of the repayment period in the table, including the appropriate index values, margin, rate limitations, length of the repayment period, and payments. For example, if different indices are used during the draw and repayment periods, the index values for that portion of the 15 years that reflect the repayment period must be the values for the appropriate index. Creditors that choose to provide information about the repayment

period at the end of the draw period, rather than with the application disclosures, need not reflect the repayment period in the example (just as they may omit information about the repayment period for purposes of the disclosures under § 226.5b(d)(12) generally). In such cases, the index values and annual percentage rates relating to the draw period would be shown for the entire 15 years (even if the draw period is less than 15 years).

#### 5b(e) Brochure

1. *Substitutes.* A brochure is a suitable substitute for the Board's home equity brochure if it is, at a minimum, comparable to the Board's brochure in substance and comprehensiveness. Creditors are permitted to provide more detailed information than is contained in the Board's brochure.

#### 5b(f) Limitations on Home Equity Plans

1. *Coverage.* Section 226.5b(f) limits both actions that may be taken and language that may be included in contracts, and applies to any assignee and holder as well as to the original creditor. The limitations apply to the draw period and any repayment period, and to any renewal or modification of the original agreement.

##### Paragraph 5b(f)(1)

1. *External index.* A creditor may change the annual percentage rate for a plan only if the change is based on an index outside the creditor's control. Thus, a creditor may not make rate changes based on its own prime rate or cost of funds and may not reserve a contractual right to change rates at its discretion. A creditor is permitted, however, to use a published prime rate, such as that in the "Wall Street Journal", even if the bank's own prime rate is one of several rates used to establish the published rate.

2. *Publicly available.* The index must be available to the public. A publicly available index need not always be published in a newspaper, but it must be one the consumer can independently obtain and use to verify rates imposed under the plan.

3. *Provisions not prohibited.* This paragraph does not prohibit rate changes that are specifically set forth in the agreement. For example, stepped-rate plans, in which specified rates are imposed for specified periods, are permissible. In addition, preferred-rate provisions, in which the rate increases by a specified amount upon the occurrence of a specified event, also are permissible.

##### Paragraph 5b(f)(2)

1. *Limitations on termination and acceleration.* In general, creditors are prohibited from terminating and accelerating payment of the outstanding balance before the scheduled expiration of a plan. However, creditors may take these actions in the three circumstances specified in § 226.5b(f)(2). Creditors are not permitted to specify in their contracts any other events that allow terminating an account or accelerating payment of the outstanding balance beyond those permitted by the regulation. Thus, for example, an agreement may not provide that the balance is payable on demand nor may it provide that the account will be terminated

and the balance accelerated if the rate cap is reached.

2. *Other actions permitted.* If one of the events permitting termination and acceleration occurs, a creditor may instead take actions short of terminating and accelerating. For example, a creditor could suspend further advances, reduce the credit limit, change the payment terms, or require the consumer to pay a fee. A creditor also may provide in its agreement that a higher rate or higher fees will apply in circumstances under which it would otherwise be permitted to terminate the plan and accelerate the balance. A creditor that does not immediately terminate an account and accelerate payment or take another permitted action may take such action at a later time; provided one of the conditions permitting termination and acceleration exists at that time.

##### Paragraph 5b(f)(2)(i)

1. *Fraud or material misrepresentation.* A creditor may terminate a plan and accelerate the balance if there has been fraud or material misrepresentation by the consumer in connection with the plan. This exception includes fraud or misrepresentation at any time, either during the application process or during the draw period and any repayment period. What constitutes fraud or misrepresentation is determined by applicable state law and may include acts of omission as well as overt acts, as long as any necessary intent on the part of the consumer exists.

##### Paragraph 5b(f)(2)(ii)

1. *Failure to meet repayment terms.* A creditor may terminate a plan and accelerate the balance if the consumer has failed to meet the repayment terms of the agreement. Failure to make payments occurs if the consumer has not made the payment within 60 days of the payment due date. Failure to make payments also would be deemed to occur if the consumer is in default for failure to make a required payment (as provided for by state or other applicable law) and the consumer does not make the payment (plus any applicable late or deferral charges) within 30 days after a creditor provides a written notice of the missed payment and the consequences of continued failure to pay. A creditor may not terminate a plan or accelerate the balance if the consumer makes payment of the amount due (the payment plus any late or deferral charges) within the 30-day period. If the consumer has received such a notice more than twice in any one-year period, and then does not make a payment, the creditor may terminate the account and accelerate the balance without providing an additional written notice. To the extent that applicable state law provides that a creditor must send a particular right to cure notice before terminating a plan and accelerating the balance or provides for a period longer than 30 days, this provision does not supersede such a requirement. Failure to make payments does not occur if, for example, the consumer, in error, sends a payment to the wrong location, such as a branch rather than the main office of the creditor. Filing for bankruptcy permits



termination if the consumer fails to make payments under the plan.

Paragraph 5b(f)(2)(iii)

1. *Impairment of security.* A creditor may terminate a plan and accelerate the balance if the consumer's action or inaction adversely affects the creditor's security for the plan, or any right of the creditor in that security. Action or inaction by third parties does not permit the creditor to terminate and accelerate.

2. *When permitted.* A creditor may terminate and accelerate, for example, if the consumer transfers title to the property or sells the property without the permission of the creditor, or if the consumer fails to maintain required insurance on the dwelling. A consumer's failure to pay taxes on the property or action by the consumer that results in a lien senior to that held by the creditor also permits the creditor to terminate and accelerate. Death of the sole consumer obligated on a plan, taking of property through eminent domain, and foreclosure by a prior lienholder permit termination and acceleration. By contrast, the filing of a judgment against the consumer would permit termination and acceleration only if the amount of the judgment and collateral subject to the judgment is such that the creditor's security is adversely affected. If the consumer commits waste or otherwise destructively uses or fails to maintain the property such that the action adversely affects the security, the plan may be terminated. Illegal use of the property by the consumer would permit termination of the plan if it subjects the property to seizure. If the consumer moves out of the dwelling that secures the plan, the creditor may not terminate a plan and accelerate the balance unless the consumer's action adversely affects the security.

Paragraph 5b(f)(3)

1. *Scope of provision.* In general, a creditor may not change the terms of a plan after it is opened. For example, a creditor may not increase any fee or impose a new fee once the plan has been opened. The change of terms prohibition applies to all features of a plan, not only those required to be disclosed under the regulation. For example, a creditor may not increase the margin for a variable-rate plan. This provision also applies to charges imposed for later payment, for example, though this fee is not required to be disclosed under § 226.5b(d)(7).

2. *Charges not covered.* There are three charges not covered by this provision. A creditor may pass on any increases for property taxes since such charges are imposed by a governmental body and are beyond the control of the creditor. In addition a creditor may pass on increases in premiums for property insurance described in § 226.4(d)(92) and increases in credit insurance premiums described in § 226.4(d)(1), provided such increased costs are imposed by a third party.

Paragraph 5b(f)(3)(i)

1. *Changes provided for in agreement.* A creditor may provide in the initial agreement for specific changes to take place upon the occurrence of specific events. Both the

triggering event and the resulting modification must be stated with specificity. For example, in an employee home equity plan, the agreement could provide that a specified higher rate or margin will apply if the borrower's employment with the creditor ends. A contract also could contain a stepped-rate or stepped-fee schedule providing for specified changes in the rate or the fees on certain dates or after a specified period of time. A creditor also may provide in the initial agreement that it will be entitled to a share of the appreciation in the value of the property as long as the specific appreciation share and the specific circumstances which require the payment of it are set forth. A contract also may permit a consumer to switch among minimum payment options during the plan.

2. *Prohibited provisions.* A creditor may not include a general provision in its agreement permitting changes to any or all of the terms of the plan. For example, creditors may not include "boilerplate" language in the agreement stating that they reserve the right to change the fees imposed under the plan. In addition, a creditor may not include any "triggering events" or responses that the regulation expressly addresses in a manner different from that provided in the regulation. For example, an agreement may not provide that the margin in a variable-rate plan will increase if there is a material change in the consumer's financial circumstances, because the regulation specifies that temporarily freezing the line or lowering the credit limit is the permissible response to a material change in the consumer's financial circumstances. Similarly a contract cannot contain a provision allowing the creditor to freeze a line due to an insignificant decrease in property value since the regulation allows that response only for a significant decrease.

Paragraph 5b(f)(3)(ii)

1. *Substitution of index.* A creditor may change the index and margin used under the plan if the original index becomes unavailable, as long as historical fluctuations in the original and replacement indices were substantially similar, and as long as the replacement index and margin will produce a rate similar to the rate that was in effect at the time the original index became unavailable. If the replacement index is newly established and therefore does not have any rate history, it may be used if it produces a rate substantially similar to the rate in effect when the original index became unavailable.

Paragraph 5b(f)(3)(iii)

1. *Changes by written agreement.* A creditor may change the terms of a plan if the consumer expressly agrees in writing to the change at the time it is made. For example, a consumer and a creditor could agree in writing to change the repayment terms from interest-only payments to payments that reduce the principal balance. The creditor must comply with the change in terms notice requirements in § 226.9(c), and the agreement is governed by the limitations in § 226.5b(f). For example, a creditor and consumer could not enter into a subsequent agreement to base changes in the annual percentage rate on the movement of an index controlled by

the creditor. Similarly, an agreement could not specify events that will permit termination and acceleration other than those permitted by the regulation.

2. *Written agreement.* The change must be agreed to in writing by the consumer. Creditors are not permitted to assume consent because the consumer uses an account, even if use of an account constitutes acceptance of a proposed change under state law.

Paragraph 5b(f)(3)(iv)

1. *Beneficial changes.* Creditors may make changes that unequivocally benefit the consumer. Under this provision, a creditor may make changes that offer more options to consumers, as long as existing options remain. For example, a creditor could offer the consumer the option of making lower monthly payments or could increase the credit limit. Similarly, a creditor could extend the length of the plan for any period, as long as it was extended or renewed on the same terms. Creditors are permitted to temporarily reduce the rate or fees charged during the plan (though a change in terms notice may be required under § 226.9(c) when the rate or fees are returned to their original level). Creditors also may offer as an option additional means of access to the line even if fees are associated with using the device, provided that the consumer retains the ability to use prior access devices on the original terms.

Paragraph 5b(f)(3)(v)

1. *Insignificant changes.* A creditor is permitted to make insignificant changes after a plan is opened. This rule allows accommodation for operational and similar problems, such as changing the address of the creditor for purposes of sending payments. It does not permit a creditor to change a term such as a fee charged for late payments.

2. *Examples of insignificant changes.* Creditors may make minor changes to features such as the billing cycle date, the payment due date (as long as the consumer does not have a diminished grace period if one is provided), and the day of the month on which index values are measured to determine changes to the rate for variable-rate plans. A creditor also may change its rounding rules, in accordance with the tolerance rules set forth in § 226.14 (for example, stating an exact APR of 14.3333 percent as 14.3 percent, even if it had previously been stated as 14.33 percent). A creditor may change the balance computation method it uses only if the change produces an insignificant difference in the finance charge paid by the consumer. For example, a creditor may switch from using the average daily balance method (including new transactions) to the daily balance method (including new transactions).

Paragraph 5b(f)(3)(vi)

1. *Suspension of credit or reduction of credit limit.* A creditor may prohibit additional extensions of credit or reduce the credit limit in seven circumstances. A creditor may not take these actions under other circumstances, unless the creditor would be permitted to terminate the line and



accelerate the balance as described in § 226.5b(f)(2). The creditor's right to reduce the credit limit does not permit reducing the limit below the amount of the outstanding balance if this would require the consumer to make a higher payment.

2. *Temporary nature of suspension or reduction.* Creditors are permitted to prohibit additional extensions of credit or reduce the credit limit only while one of the designated circumstances exists. When the circumstance justifying the creditor's action ceases to exist, credit privileges must be reinstated.

3. *Imposition of fee.* If permitted by state law, a creditor may collect a bona fide and reasonable fee in connection with actual expenses incurred to investigate whether the condition permitting the freeze continues to exist; a creditor may collect only appraisal and credit report fees. A creditor may not, in any circumstances, impose a fee to reinstate a credit line once the condition has been determined not to exist.

4. *Reinstatement of credit privileges.* Creditors are responsible for ensuring that credit privileges are restored as soon as reasonably possible after the condition that permitted the creditor's action ceases to exist. A creditor must monitor the line on an ongoing basis to determine when the condition ceases to exist. The creditor must investigate the condition frequently enough to assure itself that the condition permitting the freeze continues to exist. The frequency with which the creditor investigates to determine whether a condition continues to exist depends upon the specific condition permitting the freeze. As an alternative to such monitoring, the creditor may shift the duty to the consumer to request reinstatement of credit privileges. (See § 226.9(c)(3).) A consumer's request need not be in writing. Once the consumer has made such a request, the creditor must investigate to determine whether the condition allowing the freeze continues to exist. Under this alternative, the creditor has a duty to investigate only upon the consumer's request.

5. *Suspension of credit privileges following request by consumer.* A creditor may honor a specific request by a consumer to suspend credit privileges. Thus, for example, if two consumers are obligated under a plan and each has the ability to take advances, the agreement may permit either of the two persons to direct the creditor not to make further advances. If the person who requested suspension subsequently requests reinstatement of draw privileges, the creditor must honor the request for reinstatement.

6. *Significant decline defined.* What constitutes a significant decline for purposes of § 226.5b(f)(3)(vi)(A) will vary accordingly to individual circumstances. In any event, if the value of the dwelling declines such that the initial difference between the credit limit and the available equity (based on the property's appraised value for purposes of the plan) is reduced by fifty percent, this constitutes a significant decline in the value of the dwelling for purposes of § 226.5b(f)(3)(vi)(A). For example, assume that a house with a first mortgage of \$50,000 is appraised at \$100,000 and the credit limit is \$30,000. The difference between the credit limit and the available equity is \$20,000, half

of which is \$10,000. Therefore, the creditor could prohibit further advances or reduce the credit limit if the value of the property declines from \$100,000 to \$90,000.

7. *Material change in financial circumstances.* Two conditions must be met for § 226.5b(f)(3)(vi)(B) to apply. First, there must be a "material change" in the consumer's financial circumstances, such as a significant decrease in the consumer's income. Second, as a result of this change, the creditor must have a reasonable belief that the consumer will be unable to fulfill the payment obligations of the plan. A creditor may, does not have to, rely on specific evidence (such as the failure to pay other debts) in concluding that the second part of the test has been met.

8. *Default of a material obligation.* Creditors may specify events that would qualify as a default of a material obligation under § 226.5b(f)(3)(vi)(C). For example, a creditor may provide that default of a material obligation will exist if the consumer moves out of the dwelling or permits an intervening lien to be filed that would take priority over future advances made by the creditor.

9. *Government limits on the annual percentage rate.* Under § 226.5b(f)(3)(vi)(D), a creditor may prohibit further advances or reduce the credit limit if, for example, a state usury law is enacted which prohibits a creditor from imposing the agreed-upon annual percentage rate.

10. *Maximum annual percentage rate reached.* Under § 226.5b(f)(3)(vi)(G), a creditor may prohibit further advances or reduce the credit limit during any period in which the annual percentage rate reaches the maximum rate allowed under the plan. If the annual percentage rate subsequently declines below the maximum rate, the creditor must reinstate credit privileges.

#### 5b(g) Refund of Fees

1. *Refund of fees required.* If any disclosed term changes between the time the early disclosures are provided to the consumer and the time the plan is opened, and the consumer as a result decides to not enter into the plan, a creditor must refund all fees paid by the consumer in connection with the application. All fees, including credit report fees, appraisal fees, and insurance premiums, must be refunded whether such fees are paid directly to the creditor or to third parties. A consumer is entitled to a refund of fees under these circumstances whether or not terms are guaranteed by the creditor under § 226.5b(d)(2)(i).

2. *Variable-rate plans.* The right referred to in this paragraph does not apply to changes resulting from fluctuations in the index value in a variable-rate plan. This includes changes in the annual percentage rate and changes in the maximum rate if the maximum is expressed as an amount over the initial interest rate.

3. *Changes in disclosed terms.* If a disclosed term, such as the maximum rate, is stated as a range in the early disclosures, and the term ultimately applicable to the plan falls within that range, a change does not occur for purposes of this section. If, however, no range is used and the term is

changed (for example, a rate cap of 6 rather than 5 percentage points over the initial rate), the change would permit the consumer to obtain a refund of fees. If a fee imposed by the creditor is stated in the early disclosures as an estimate and the fee changes, the consumer could elect to not enter into the agreement and would be entitled to a refund of fees. On the other hand, if fees imposed by third parties are disclosed as estimates and those fees change, the consumer is not entitled to a refund of fees paid in connection with the application. Creditors must, however, use the best information available in providing disclosures about such fees.

4. *Timing of refunds and relation to other provisions.* The refund of fees must be made as soon as reasonably possible after the creditor is notified that the consumer is not entering into the plan because of the changed term, or that the consumer wants a refund of fees. The fact that an application fee may be refunded to some applicants under this provision does not render such fees finance charges under the test set forth in comment 4(c)(1)-1.

#### 5b(h) Imposition of Nonrefundable Fees

1. *Collection of fees before consumer receives disclosures.* An application fee may be collected before the consumer receives the disclosures and brochure (for example, when an application contained in a magazine is mailed in with an application fee) provided that it remains refundable until three business days after the consumer receives the § 226.5b disclosures. No other fees except a refundable membership fee may be collected until after the consumer receives the disclosures required under § 226.5b.

2. *Collection of fees after consumer receives disclosures.* A fee may be collected after the consumer receives the disclosures and brochure and before the expiration of three days, although the fee must be refunded if, within three days of receiving the required information, the consumer decides not to enter into the agreement. In such a case, the consumer must be notified that the fee is refundable for three days. If the disclosures and brochure are mailed to the consumer, footnote 10d of the regulation provides that a nonrefundable fee may not be imposed until six business days after the mailing.

3. *Relation to other provisions.* A fee collected earlier may become nonrefundable except that, under § 226.5b(g), it must be refunded if the consumer elects not to enter into the plan because of a change in terms. (In addition, of course, all fees must be refunded if the consumer later rescinds under § 226.15.)

#### Section 226.6—Initial Disclosure Statement

8. Comment 6(a)(2)-2 would be amended by adding a sentence after the first sentence in the third bullet paragraph to read as follows:

8(a) Finance Charge.

\* \* \* \* \*

Paragraph 6(a)(2)

\* \* \* \* \*



## 2. Variable-rate disclosures—coverage.

... (See the rule in § 226.5b(f)(1) applicable to home equity plans, however, which prohibits "rate reservation" clauses.)

9. Comments 6(e)-4 and a heading would be added to read as follows:

### ► 6(e) Home equity plan information.

1. *Additional disclosures required.* For home equity plans, creditors must provide several of the disclosures set forth in § 226.5b(d) along with the disclosures required under § 226.6. Creditors also must disclose a list of the conditions that permit the creditor to terminate the plan, freeze or reduce the credit limit, and implement specified modifications to the original terms. This latter requirement can be met by providing a separate list or by identifying the provisions in the contract which contain such conditions. (See the commentary to § 226.5b(d)(4)(iii) regarding the form of this information.)

2. *Form of disclosures.* The additional home equity disclosures must be in a form the consumer can keep, and are governed by § 226.5a(1). The segregation standard set forth in § 226.5b(a) does not apply to home equity disclosures provided under § 226.6.

3. *Disclosure of payment and variable-rate examples.* The payment example disclosure in § 226.5b(d)(5)(iii) and the variable-rate information in § 226.5b(d)(12)(viii), (x), (xi), and (xii) need not be provided with the disclosures under § 226.6 if:

- The disclosures described in § 226.5b(d) were provided in a form a consumer could keep; and

- The disclosures of the payment example under § 226.5b(d)(5)(iii), the maximum payment example under § 226.5b(d)(12)(x) and the historical table under § 226.5b(d)(12)(xi) included a representative payment example for the category of payment options the consumer has chosen.

For example, if a creditor offers three payment options (one in each of the categories described in the commentary to § 226.5b(d)(5)), describes all three options in its early disclosures, and provides the disclosures in a retainable form, that creditor need not provide the § 226.5b(d)(5)(iii) or § 226.5b(d)(12) disclosures again when the account is opened. If the creditor showed only one of the three options in the early disclosures, the disclosures under § 226.5b(d)(5)(iii) and § 226.5b(d)(12)(viii), (x), (xi) and (xii) disclosures must be given to any consumer who chooses one of the other two options. If the § 226.5b(d)(5)(iii) and § 226.5b(d)(12) disclosures are provided with the second set of disclosures, they need not be transaction-specific, but may be based on a representative example of the category of payment option chosen.

4. *Disclosures for the repayment period.* If the creditor has included complete information about both the draw and repayment phases in the § 226.5b disclosures given at application, the creditor must provide disclosures about both phases when giving the disclosures under § 226.6.

Specifically, a creditor must make the disclosures in § 226.6(e) and state the corresponding annual percentage rate and variable-rate information required in footnote 12 for the repayment phase. However, if the creditor defers providing the bulk of the § 226.5b disclosures for the repayment phase until conversion, the creditor need not provide any information about the repayment period under § 226.6 other than the payment terms listed in § 226.6(e)(2). Thus, for example, if the disclosures are delayed, the creditor would not have to give the variable-rate information set out in footnote 12 for the repayment phase.

## Section 226.9—Subsequent Disclosure Requirements

10. Comment 9(c)-1 would be amended by adding a sentence at the end to read as follows:

### 9(c) Change in terms.

#### 1. "Changes" initially disclosed.

► The rules in § 226.5b(f) relating to home equity plans, however, limit the ability of a creditor to change the terms of such plans.

11. Comment 9(c)(1)-6 would be added to read as follows:

### 9(c)(1) Written notice required.

► 6. *Home equity plans.* If a creditor renews the draw period for a home equity plan on terms different from the original plan, the requirements of § 226.9(c) apply to such a change. Thus, for example, a creditor must provide a notice of the changed terms at least 15 days before the change takes effect.

12. Comment 9(c)(3)-1 and a heading would be added to read as follows:

### ► Paragraph 9(c)(3).

1. *Notice not required.* A creditor need not provide a notice under this paragraph if, pursuant to the commentary to § 226.5b(f)(2), a creditor freezes a line or reduces a credit line rather than terminating a plan and accelerating the balance.

13. Comment 9(e)-1 through 9(e)(3)-2 and headings would be added to read as follows:

### ► 9(e) Disclosures upon renewal of credit or charge card.

1. *Coverage.* This paragraph applies to credit and charge card accounts of the type subject to § 226.5a. (See § 226.5a(a)(3) and the accompanying commentary for discussion of the types of accounts subject to § 226.5a.) The disclosure requirements are triggered when a card issuer imposes any annual or other periodic fee on such an account, whether or not the card issuer originally was required to provide the application and solicitation disclosures described in § 226.5a.

2. *Form.* The disclosures under this paragraph must be clear and conspicuous, but need not appear in a tabular format or in a prominent location. The disclosures need not be in a form the cardholder can retain.

3. *Terms at renewal.* Renewal notices must reflect the terms actually in effect at the time of renewal. For example, a card issuer that offers a preferential annual percentage rate to employees during their employment would send a renewal notice to employees disclosing the lower rate actually charged to employees rather than the rate charged to the general public.

4. *Variable rate.* If the card issuer cannot determine the rate that will be in effect if the cardholder chooses to renew a variable-rate account, the card issuer may disclose any rate applicable to the account within the 30-day period prior to the mailing of the renewal notice.

5. *Periodic fees.* If a renewal fee is billed more often than annually, the renewal notice should be provided each time the fee is billed. In this instance, the fee need not be disclosed as an annualized amount. Alternatively, the card issuer may provide the notice no less than once every twelve months if the notice explains the amount and frequency of the fee that will be billed during the time period covered by the disclosure, and also disclose the fee as an annualized amount. The notice under this alternative also must state the consequences of a cardholder's decision to terminate the account after the renewal notice period has expired. For example, if a \$2 fee is billed monthly but the notice is given annually, the notice must inform the cardholder that the monthly charge is \$2, the annualized fee is \$24 and \$2 will be billed to the account each month for the coming year unless the cardholder notifies the card issuer. If the cardholder is obligated to pay an amount equal to the remaining unpaid monthly charges if the cardholder terminates the account during the coming year but after the first month, the notice must disclose that fact.

6. *Terminating credit availability.* The regulation does not address the form or the content of the card issuer's instructions on how and when a cardholder may terminate credit availability to avoid paying the renewal fee. State and other applicable law governs whether the card issuer may, for example, require the consumer's response to be in writing or the outstanding balance to be repaid in full.

### 9(e)(1) Notice Prior to Renewal

1. *Timing of advance notice.* If the card issuer chooses to give advance notice under § 226.9(e)(1), the renewal notice must be provided at least 30 days or one billing cycle, whichever is less, before the renewal date. Thus, for example, if a billing cycle is 28 days (February 1 through February 28) and an annual fee is posted to the account on the first day of the following billing cycle (March 1), the issuer must give notice so that the cardholder has at least 28 days both to make a decision about the renewal of the account and to use the card without having the fee billed to the account. If a cardholder sends timely notice (on February 28) of a decision not to renew the account and the fee is posted before the card issuer receives the notice (for example, March 3), the card issuer will be deemed to be in compliance if the fee is reversed or otherwise withdrawn during



the March billing cycle and the cardholder is not required to take any additional action to have the fee removed from the outstanding balance.

#### 9(f)(3) Notification on Periodic Statements

1. *Interspersed disclosures.* The form of a periodic statement that contains renewal notices must comply with the rules in both § 226.5a and § 226.7. For example, "annual percentage rate" must be printed more conspicuously than other required disclosures to comply with the periodic statement requirements of § 226.7, even though the requirements of § 226.5a would not otherwise require the words to be highlighted. Similarly, the words "grace period" must be used and the name of the balance calculation method must be identified (if listed in § 226.5a(g)) to comply with the requirements of § 226.5a, even though the use of those terms would not otherwise be required for periodic statements under § 226.7.

2. *Preprinted notices on periodic statements.* A card issuer may preprint the required information on its periodic statements. A card issuer that does so, however, using the advance notice option under § 226.9(e)(1), must make clear on the periodic statement when the preprinted renewal disclosures are applicable. For example, the card issuer could include a special notice (not preprinted) at the appropriate time that the renewal fee will be billed in the following billing cycle, or could show the renewal date as a regular (preprinted) entry on all periodic statements.

14. Comments 9(f)-1 through 9(f)(3)-1 and headings would be added to read as follows:

#### ►9(f) Change in Credit Card Account Insurance Provider

1. *Coverage.* This paragraph applies to credit card accounts of the type subject to § 226.5a if credit insurance (typically life, disability, and unemployment insurance) is offered on the outstanding balance of such an account. (Credit card accounts subject to § 226.9(f) are the same as those subject to § 226.9(e); see comment 9(e)-1.) Charge card accounts are not covered by this paragraph. In addition, the disclosure requirements of this paragraph apply only where the card issuer initiates the change in insurance providers. For example, if the card issuer's current insurance provider is merged into or acquired by another company, these disclosures would not be required. Disclosures also need not be given in cases where card issuers pay for credit insurance themselves and do not separately charge the cardholder.

2. *No increase in rate or decrease in coverage.* The requirement to provide the disclosure arises when the card issuer changes the provider of insurance, even if there will be no increase in the premium rate charged the consumer and no decrease in coverage under the insurance policy.

3. *Form of notice.* If a substantial decrease in coverage will result from the change in providers, the card issuer must either explain the decrease or refer to an accompanying copy of the policy or group certificate for

details of the new terms of coverage. (See the commentary to appendix G-13.)

4. *Discontinuation of insurance.* In addition to stating that the cardholder may cancel the insurance, the card issuer may explain the effect the cancellation would have on the consumer's credit card plan.

5. *Mailing by third party.* Although the card issuer is responsible for the disclosures, the insurance provider or another third party may furnish the disclosures on the card issuer's behalf.

#### 9(f)(3) Substantial Decrease in Coverage

1. *Determination.* Whether a substantial decrease in coverage will result from the change in providers is determined by the two-part test in § 226.9(f)(3): first, whether the decrease is in a significant term of coverage; and second, whether the decrease might reasonably be expected to affect a cardholder's decision to continue the insurance. If both conditions are met, the decrease must be disclosed in the notice.

#### Section 226.12—Special Credit Card Provisions

15. Comment 12(a)(2)-9 would be added to read as follows:

#### 12(a) Issuance of Credit Cards

\* \* \* \* \*

#### Paragraph 12(a)(2)

\* \* \* \* \*

►9. *Multiple entities.* Where multiple entities have an arrangement to issue a credit card, none of them may replace the credit card on an unsolicited basis unless the original card is terminated.

#### Section 226.14—Determination of Annual Percentage Rate

16. The heading to comments under § 226.14(b) would be revised to read as follows:

#### 14(b) Annual Percentage Rate for ►§ 226.5a and § 226.5b Disclosures, for ◀ Initial Disclosures and for Advertising Purposes

17. Comment 14(b)-1 would be amended by revising the first sentence to read as follows:

1. *Corresponding annual percentage rate computation.* ►For purposes of §§ 226.5a, 226.5b, 226.6 and 226.16, ◀ [For initial disclosures (under § 226.6) and for advertising (under § 226.16),] the annual percentage rate is determined by multiplying the periodic rate by the number of periods in the year. \* \* \*

#### Section 226.15—Right of Rescission

18. Comments to 15(a)(3) would be amended by adding two sentences at the end of comment 15(a)(3)-2; and by adding a sentence at the end of comment 15(a)(3)-3 to read as follows:

#### 15(a) Consumer's right to rescind

\* \* \* \* \*

#### Paragraph 15(a)(3)

\* \* \* \* \*

2. *Material disclosures.* \* \* \* ►The payment terms set forth in footnote 36 also apply to any repayment phase set forth in an initial agreement. Thus, the payment terms described in section 226.8(e)(2) for any repayment phase as well as for the draw period are "material disclosures."

3. *Material disclosures—variable-rate program.* \* \* \* ►The disclosures listed in footnote 12 to § 226.6(a)(2) for any repayment phase also are material disclosures for variable-rate programs.

\* \* \* \* \*

#### Section 226.16—Advertising

19. Comments to 16(b) would be amended by adding parenthetical material at the end of comment 16(b)-2 and by revising the last sentence in comment 16(b)-6 to read as follows:

#### 16(b) Advertisement of terms that require additional disclosures

\* \* \* \* \*

2. *Use of positive terms.* \* \* \* ►[See, however, the rules in § 226.16(d) relating to advertisements for home equity plans.]

6. *Discounted variable-rate plans—disclosure of the annual percentage rates.* \* \* \* The options listed in comment 16(b)-[4]►5◀ may be used in disclosing the current indexed rate.

\* \* \* \* \*

20. Comment 16(b)-7 would be revised to read as follows:

7. *Triggering terms.* The following are examples of terms that trigger additional disclosures:

• "Small monthly service charge on the remaining balance ["]►," which describes how the amount of a finance charge will be determined.

• "12 percent Annual Percentage Rate ["]►" or ◀

["•] "A \$15 annual membership fee buys you \$2,000 in credit ["]►," which describes required disclosures using a positive numbers.

• "No finance charge until November," or "No finance charge for 90 days," which describe a time period during which credit extended may be repaid without incurring a finance charge.

21. Comments 16(d)-1 through -6 and a heading would be added to read as follows:

#### ►16(d) Additional Requirements for Home Equity Plans

1. *Trigger terms.* Negative as well as affirmative references trigger the requirement for additional information. For example, if a creditor states "no annual fee" or "no points" in an advertisement, additional information must be provided. References to payment terms include references to the draw period or any repayment period, to the length of the plan, to how the minimum payments are determined and to the timing of such payments. Advertisements for home equity



plans must comply with all provisions in § 226.16—not solely the rules in § 226.16(d).

2. *References to terms.* In providing the information required under this paragraph, the corresponding rules for disclosure of this information apply. For example, fees to open the plan may be stated as a range. (See the commentary to § 226.5b(d)(7) and (8).)

3. *Fees to open the plan.* Section 226.16(d)(1)(i) requires a disclosure of any fees imposed by the creditor or a third party to open the plan. It does not require a statement of fees to use or maintain the plan. Fees to use or maintain the plan (such as membership fees and transaction charges), however, may be required to be disclosed under § 226.16(b)(1) and (3).

4. *Statements of tax deductibility.* An advertisement referring to deductibility for tax purposes is not misleading if it includes a statement such as "consult a tax advisor regarding the deductibility of interest."

5. *Misleading terms prohibited.* Under § 226.16(d)(5), advertisements may not refer to home equity plans as "free money," or use other misleading terms. For example, an advertisement could not state "no closing costs" if consumers may be required to pay any closing costs, such as recordation fees.

6. *Inapplicability of closed-end rules.* Advertisements for home equity plans are governed solely by the requirements in section 226.16, and not by the closed-end advertising rules in section 226.24. Thus, if a creditor states payment information about the repayment phase, this will trigger the duty to provide additional information under § 226.16, but not under § 226.24.

#### Subpart C—Closed-End Credit

##### Section 26.17—General Disclosure Requirements

22. Comment 17(b)-2 would be amended by revising the first sentence to read as follows:

##### 17(b) Time of disclosures

2. *Converting open-end to closed-end credit.* [If] Except for home equity plans subject to § 226.5b in which the agreement provides for a repayment phase, if an open-end credit account is converted to a closed-end transaction under a written agreement with the consumer, the creditor must provide a set of closed-end credit disclosures before consummation of the closed-end transaction.

23. Comments to 17(c) would be amended by adding four sentences and parenthetical material at the end of the introductory paragraph of comment 17(c)(1)-4; by adding a fourth bullet paragraph before the last paragraph of comment 17(c)(1)-11; and by adding a new comment 17(c)(1)-17, to read as follows:

17(c) Basis of Disclosures and Use of Estimates

##### Paragraph 17(c)(1)

4. *Consumer buydowns.* \* \* \* The rules regarding consumer buydowns do not apply

to transactions known as "lender buydowns." In lender buydowns, a creditor pays an amount (either into an account or to the party to whom the obligation is sold) to reduce the consumer's payments or interest rate for all or a portion of the credit term. Typically, these transactions are structured as a buydown of the interest rate during an initial period of the transaction with a higher than usual rate for the remainder of the term. The disclosures for lender buydowns should be based on the terms of the legal obligation between the consumer and the creditor. (See comment 17(c)(1)-3 for the analogous rules concerning third-party buydowns.)

##### 11. Other variable-rate transactions. \* \* \*

\* \* \* "Price level adjusted mortgages," or other indexed mortgages, that have a fixed rate of interest but provide for periodic adjustments to payments and loan balance to reflect changes in an index measuring prices or inflation. Disclosures are to be based on the fixed interest rate.

\* \* \* 17. *Special rules for tax refund anticipation loans.* Tax refund loans, also known as refund anticipation loans (RALs), are transactions in which a creditor will lend up to the amount of a consumer's expected tax refund. RAL agreements typically require repayment when the refund is made, and if the refund is less than the payment due, the consumer must pay the difference. Repayment often is made by a pre-authorized offset to a consumer's account held with the creditor when the refund has been deposited by electronic transfer. Creditors typically charge fees for RALs, which may include fees for filing the consumer's tax return electronically. In RAL transactions subject to the regulation:

\* If repayment of the loan is required when the refund is delivered (such as by deposit into the consumer's account), the disclosures should be based on the creditor's estimate of the time the refund will be delivered even if the loan also contains a demand clause. (See comment 17(c)(5)-1 for the rules regarding disclosures if the loan is payable solely on demand or is payable either on demand or on an alternate maturity date, as determined by applicable law.)

\* If the consumer is required to repay more than the amount borrowed, the difference is finance charge. In addition, to the extent that any fees charged in connection with the loan (such as for filing the tax return electronically) exceed those fees for a comparable cash transaction (that is, filing the tax return electronically without any loan), the difference should be included in the finance charge.

##### Section 226.19—Certain Residential Mortgage Transactions

24. Comment 19(a)(1)-3 would be amended by adding parenthetical material after the third sentence to read as follows:

##### 19(a)(1) Time of Disclosure

3. *Written application.* \* \* \* (See comment 19(b)-3 for the factors to be considered in

determining whether or not the transaction involves an intermediary agent or broker.)

25. Comments to 19(b) would be amended by adding parenthetical information after the second sentence and revising the fifth sentence to comment 19(b)-2; by redesignating comments 19(b)-3 and -4 to be comments 19(b)-4 and -5, respectively; by adding new comment 19(b)-3; and by adding a third bullet before the last sentence of comment 19(b)-5 to read as follows:

##### 19(b) Certain variable-rate transactions

2. *Timing.* \* \* \* (See comment 19(b)-3 for the factors to be considered in determining whether or not the transaction involves an intermediary agent or broker.) \* \* \* Except for home equity plans subject to § 226.5b in which the agreement provides for a repayment phase, in [in] cases where an open-end credit account will convert to a closed-end transaction subject to this section under a written agreement with the consumer, disclosures under this section may be given at the time of conversion. \* \* \*

\* 3. *Intermediary agent or broker.* A legal agent of the creditor (as determined by applicable law) is not an "intermediary agent or broker." In determining whether or not a transaction involves an "intermediary agent or broker," the following factors should be considered:

\* The percentage of applications submitted by the broker to the creditor as compared to the total number of applications received by the creditor. The greater the percentage of total applications submitted by a broker in any given period of time, the less likely it is that the broker would be considered an "intermediary agent or broker" or the creditor during the next period.

\* The percentage of applications submitted by the broker to the creditor as compared to the total number of applications received by the broker. (This factor is applicable only when the creditor has such information.) The greater the percentage of the total loan applications received by the broker that is submitted to a creditor in any given period of time, the less likely it is that the broker would be considered an "intermediary agent or broker" of the creditor during the next period.

\* The amount of work done by the broker on an application (such as negotiations, processing, and closing). The more work that the broker performs on an application for a creditor (and thus the longer the time the application is held by the broker), the less likely it is that the broker would be considered an "intermediary agent or broker" of the creditor.

An example of an "intermediary agent or broker" is a broker who, customarily within a brief time after receiving an application, inquires about the credit terms of several creditors with whom the broker does business and submits the application to one of them. During this time, the broker may request a credit report and an appraisal. Furthermore, the broker has been responsible



for only a small percentage of the applications received by the creditor.►

#### 5. Example of variable-rate transactions.

► "Price level adjusted mortgages," or other indexed mortgages, that have a fixed rate of interest but provide for periodic adjustments to payments and loan balance to reflect changes in an index measuring prices or inflation. The disclosures under § 226.19(b)(1) are not applicable to such loans and disclosures concerning changes in the interest rate, such as under § 226.19(b)(2)(viii) and (x), also are not applicable. (See comment 30-1 regarding the inapplicability of interest rate limitations to price level adjusted mortgages.)◄

#### Section 226.23—Right of Rescission

26. Comment 23(f)-8 would be amended by revising the second sentence to read as follows:

#### 23(f) Exempt transactions

8. *Converting open-end to closed-end credit.* \* \* \* As provided in the commentary to § 226.17(b) concerning transactions not subject to § 226.5b, closed-end credit disclosures may be delayed under these circumstances until the conversion of the open-end account to a closed-end transaction. \* \* \*

#### Subpart D—Miscellaneous

#### Section 226.25—Record Retention

27. Comment 259(a)-4 would be added to read as follows:

#### 25(a) General rule

► 4. *Home equity plans.* In home equity plans that are subject to the requirements of § 226.5b, written procedures for compliance with those requirements as well as a sample disclosure form and contract for each home equity program represent adequate evidence of compliance. (See comment 25(a)-2 pertaining to permissible methods of retaining the required disclosures.)◄

#### Section 226.28—Effect on State Laws

28. Comments 28(d)-1 through 28(d)-3 and a heading would be added to read as follows:

#### ► 28(d) Special rule for credit and charge cards

1. *General.* The standard that applies to preemption of state laws as they affect transactions of the type subject to §§ 226.5a and 226.9(e) differs from the preemption standards generally applicable under the Truth in Lending Act. The Fair Credit and Charge Card Disclosure Act fully preempts state laws relating to the disclosure of credit information in consumer credit or charge card applications or solicitations. For example, a state law requiring disclosure of credit terms in direct mail solicitations for consumer

credit card accounts would be preempted. A state law requiring disclosures in telephone applications for consumer credit card accounts also would be preempted, even as it applied to applications initiated by the consumer rather than the issuer, because the state law relates to the disclosure of credit information in applications or solicitations within the general field of preemption, that is, consumer credit and charge cards.

2. *Limitations on field of preemption.* Preemption under the Fair Credit and Charge Card Disclosure Act does not extend to state laws applying to types of credit other than open-end consumer credit and charge card accounts. Thus, for example, a state law requiring disclosures in applications and solicitations for credit and charge cards that may be used for both consumer and business purposes would be preempted as it applied to applications and solicitations for consumer-purpose cards, but not as it applied to applications and solicitations for business-purpose cards. (Whether, as a result, the state law would be voided in its entirety would have to be determined under state law.) Preemption under this statute also does not extend to state laws applicable to home equity plans; preemption determinations in this area would be based on the Home Equity Loan Consumer Protection Act, as implemented in § 226.5b of the regulation.

3. *Laws not preempted.* State laws relating to disclosures concerning credit and charge cards other than in applications, solicitations, or renewal notices are not preempted under § 226.28(d). In addition, state laws regulating the terms of credit and charge card accounts are not preempted, nor are laws preempted that regulate the form or content of information unrelated to the information required to be disclosed under §§ 226.5a and 226.9(e). Finally, state laws concerning the enforcement of the requirements of §§ 226.5a and 226.9(e) and state laws prohibiting unfair or deceptive acts or practices concerning credit and charge card applications, solicitations and renewals are not preempted. Examples of laws that would not be preempted include:

- A state law that requires card issuers to offer a grace period or that prohibits certain fees in credit and charge card transactions.
- A state retail installment sales law or a state plain language law, except to the extent that it regulates the disclosure of credit information in applications, solicitations and renewals of accounts of the type subject to §§ 226.5a and 226.9(e).
- A state law requiring notice of a consumer's rights under antidiscrimination or similar laws or a state law requiring notice about credit information available from state authorities.◄

#### Section 226.30—Limitations on Rates

29. Comment 30-1 would be amended by revising the second bullet paragraph; by revising the first sentence in the fourth bullet paragraph; and by adding a sixth bullet paragraph before the last paragraph to read as follows. The paragraph after the second bullet paragraph is republished.

1. *Scope of coverage.* \* \* \* Examples of credit obligations subject to this section include: \* \* \*

• Dwelling-secured open-end credit plans entered into before November 7, 1989, that are not considered variable-rate obligations for purposes of disclosure under the regulation but where the creditor reserves the contractual right to increase the interest rate—periodic rate and corresponding annual percentage rate—during the term of the plan.

In contrast, credit obligations in which there is no contractual right to increase the interest rate during the term of the obligation are not subject to this section. Examples include: \* \* \*

• Dwelling-secured fixed-rate closed-end balloon-payment mortgage loans and dwelling-secured fixed-rate open-end plans with a stated term that the creditor may [but does not have a legal obligation to] renew at maturity. \* \* \*

► "Price level adjusted mortgages," or other indexed mortgages, that have a fixed rate of interest but provide for periodic adjustments to payments and loan balance to reflect changes in an index measuring prices or inflation.◄

30. Comment 30-11 would be amended by revising the fourth sentence; by removing the fifth sentence; and by adding a sentence after the fourth sentence, to read as follows:

11. *Increasing the maximum interest rate—general rule.* \* \* \* Furthermore, where an open-end plan has a fixed maturity and a creditor renews the plan at maturity, [converts the plan to closed-end credit, without having a legal obligation to renew or convert,] or enters into a closed-end credit transaction, a new maximum interest rate may be set at that time. [If, under the initial agreement, the creditor is obligated to renew or convert the plan, the maximum interest rate originally imposed cannot be increased upon renewal or conversion (unless, of course, a new obligation is entered into).] If the open-end plan provides for a repayment phase, the maximum interest rate originally imposed cannot be increased when the repayment phase begins.◄ \* \* \*

#### Appendix G—Open-End Model Forms and Clauses

33. Comments app. G-5 through app. G-7 would be added to read as follows:

► 5. *Models G-10(A) through 10(C).* Models G-10(A) and G-10(B) illustrate the tabular format for providing the disclosures required under § 226.5a for applications and solicitations for credit cards other than charge cards. Model G-10(A) illustrates the permissible inclusion in the tabular format of all of the disclosures. Model G-10(B) contains only the disclosures required to be included in the table, while the three additional disclosures are shown outside of the table. The two forms also illustrate two different levels of detail in disclosing the grace period, and different arrangements of the disclosures. Model G-10(C) illustrates the tabular format disclosure for charge card applications and solicitations and reflects all of the disclosures



in the table. Disclosures may be arranged in an order different from that in model forms G-10(A), (B), and (C); may be arranged vertically or horizontally; need not be highlighted aside from being included in the table; and are not required to be in any particular type size. Various features from different model forms may be combined; for example, the shorter grace period disclosure in model form G-10(B) may be used in any disclosure. While proper use of the model forms will be deemed to comply with the regulation, card issuers are permitted to use headings and disclosures other than those in the forms (with an exception relating to the use of "grace period") if they are clear and concise and are substantially similar to the headings and disclosures contained in model forms. For further discussion of requirements relating to form, see the commentary to § 226.5a(a)(2).

6. *Models G-11 and G-12.* Model G-11 contains clauses that illustrate the general disclosures required under § 226.5a(e) in applications and solicitations made available to the general public. Model G-12 is a model clause for the disclosure required under § 226.5a(f) when a charge card accesses an open-end plan offered by another creditor.

7. *Models G-13(A) and G-13(B).* These model forms illustrate the disclosures required under § 226.9(f) when the card issuer changes the entity providing insurance on a credit card account. Model G-13(A) contains the items set forth in § 226.9(f)(3) as examples of significant terms of coverage that may be affected by the change in insurance provider. The card issuer may either list all of these potential changes in coverage and place a check mark by the applicable changes, or list only the actual changes in coverage. Under either approach, the card issuer must either explain the changes or refer to an accompanying copy of the policy or group certificate for details of the new terms of coverage. Model G-13(A) also illustrates the permissible combination of the two notices required by § 226.9(f)—the notice required for a planned change in provider and the notice required once a change has occurred. This form may be modified for use in providing only the disclosure required before the change if the card issuer chooses to send two separate notices. Thus, for example, the references to the attached policy or certificate would not be required in a separate notice prior to a change in the insurance provider since the policy or certificate need not be provided at that time. Model G-13(B) illustrates the disclosures required under § 226.9(f)(2) when the insurance provider is changed.

Board of Governors of the Federal Reserve System, November 15, 1989.

William W. Wiles,  
Secretary of the Board.

[FR Doc. 89-27270 Filed 11-21-89; 8:45 am]

BILLING CODE 6210-01-M

## NATIONAL CREDIT UNION ADMINISTRATION

### 12 CFR Part 749

#### Records Preservation Program

**AGENCY:** National Credit Union Administration (NCUA).

**ACTION:** Proposed amendment.

**SUMMARY:** Part 749 of the NCUA Regulations (12 CFR part 749) sets forth requirements for records preservation for federally-insured credit unions. The National Credit Union Administration Board, as part of its periodic review of its regulations, has reviewed part 749. Except for one technical change, the NCUA Board believes that part 749 is not in need of revision. The NCUA board requests public comment on whether any additional modification to part 749 is necessary.

**DATE:** Comments must be received on or before February 20, 1990.

**ADDRESS:** Send comments to Becky Baker, Secretary of the Board, National Credit Union Administration, 1776 G Street NW., Washington, DC 20456.

**FOR FURTHER INFORMATION CONTACT:** Roy DeLoach, Staff Attorney, at the above address, or telephone: (202) 682-9630.

#### SUPPLEMENTARY INFORMATION:

##### Paperwork Reduction Act

The current control number for part 749 is 3133-0032. No change in the collection requirements is suggested.

##### Background

Part 749 establishes minimum requirements for records preservation with which all federally-insured credit unions must comply. The records preservation program of off-site storage of duplicate vital records is intended to provide financial and other necessary data for reconstruction purposes in the event of a catastrophe. The last major revision of part 749 was made in 1981. (See 46 FR 17188 (March 18, 1981).) At that time, the regulation was substantially deregulated. It remains in that form today. In 1982, the NCUA Board removed § 749.3 which addressed NCUA financed off-site storage of credit union vital records. (See 47 FR 8006 (February 24, 1982).) No other changes have occurred. The NCUA receives few, if any, inquiries concerning the interpretation of part 749.

Section 5190 of the Accounting Manual for Federal Credit Unions (NCUA Publication 8022) addresses records preservation and retention.

Federal credit unions (FCU's) should use section 5190 of the Accounting Manual for additional guidance concerning records preservation and storage of vital records.

NCUA recently published Letter to Credit Unions #109 dated September 1, 1989, which outlined issues and risks associated with certain computer operations. Three policy statements issued by the Federal Financial Institutions Examination Council were attached. The third policy statement concerned contingency planning in the event of disaster. Credit unions may wish to review Letter 109 when formulating comments concerning part 749. Additional copies of Letter 109 may be obtained from NCUA's Administrative Office at the above address.

Presently, part 749 assigns the treasurer of the credit union the responsibility for storing duplicative vital records at a vital records storage center (see 12 CFR 749.1). The FCU Act and the Standard FCU Bylaws previously used the term "treasurer." The term "financial officer" is now used in the FCU Act and Bylaws. (See section 112 of the FCU Act, 12 U.S.C. 1761a, and article VIII, section 9 of the Standard FCU Bylaws.) In all rules issued, the NCUA Board substitutes the term "treasurer" with the term "financial officer." The financial officer of the FCU will be responsible for compliance with part 749. This change is the only change made in the proposed rule.

#### Regulatory Procedures

##### Regulatory Flexibility Analysis

The NCUA Board certifies that this proposed rule will not have a significant impact on a substantial number of small credit unions. No substantive changes to the current rule are proposed.

##### Executive Order 12612

This regulation currently applies to all federally-insured credit unions. No change is proposed to its application. Hence no new burdens are imposed on state entities. The NCUA Board continues to believe that this regulation should apply to state-chartered, federally-insured credit unions. All federally-insured credit unions must maintain duplicate vital records in the event original records are destroyed.

#### List of Subjects in 12 CFR Part 749

Credit unions, Records preservation, Vital records



By the National Credit Union  
Administration Board on November 13, 1989.  
Becky Baker,  
Secretary of the Board.

Accordingly, NCUA proposed to  
amend 12 CFR part 749 as follows:

1. Part 749 is revised to read as  
follows:

#### **PART 749—RECORDS PRESERVATION PROGRAM**

Sec.

749.0 Records preservation.

749.1 Implementation.

749.2 Vital records to be stored.

Authority: 12 U.S.C. 1766, 1783 and 1789.

##### **§ 749.0 Records preservation.**

All federally-insured credit unions  
must maintain a records preservation  
program to identify, store and  
reconstruct vital records in the event  
that the credit union's records are  
destroyed.

##### **§ 749.1 Implementation.**

The financial officer of the credit  
union is responsible for storing duplicate  
vital records at a vital records center.  
This responsibility may be delegated.

(a) The Records Preservation Program  
must be operational within 6 months  
after the credit union's insurance  
certificate is issued.

(b) The vital records center is defined  
as any location far enough from the  
credit union's office to avoid the  
simultaneous loss of both sets of records  
in the event of disaster.

(c) Records must be stored every 3  
months, within 30 days after the end of  
the 3-month period. Previously-stored  
records may be destroyed when the  
current records are stored.

(d) A records preservation log will be  
maintained showing what records were  
stored, where the records were stored,  
when the records were stored, and who  
sent the records for storage.

(e) Stored records may be in any  
format which can be used to reconstruct  
the credit union's records. Formats  
include paper originals, machine copies,  
micro film or fiche, magnetic tape, etc.

(f) Credit unions which have some or  
all of their records maintained by an off-  
site data processor are considered to be  
in compliance for the storage of those  
records.

##### **§ 749.2 Vital records to be stored.**

At least the following records, as of  
the most recent month-end, must be  
stored:

(a) A list of share and/or deposit and  
loan balances for each member's  
account.

(1) The list of balances will be  
individually identified by a name or  
number.

(2) Multiple loans of one account will  
be listed separately.

(b) A financial report which lists all of  
the credit union's asset and liability  
accounts.

(c) A list of the credit union's banks,  
insurance policies and investments. This  
information may be marked  
"permanent" and be updated only when  
changes are made.

[FR Doc. 89-27243 Filed 11-21-89; 8:45 am]

BILLING CODE 7535-01-M

#### **DEPARTMENT OF TRANSPORTATION**

##### **Federal Aviation Administration**

##### **14 CFR Part 39**

[Docket No. 89-ANE-07]

##### **Airworthiness Directives; General Electric (GE) CF6-50/-45 Series Turboprop Engines**

**AGENCY:** Federal Aviation  
Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking  
(NPRM).

**SUMMARY:** This document proposes to  
adopt an airworthiness directive (AD)  
that would require the installation of a  
center vent tube extension assembly on  
GE CF6-50/-45 series turboprop engines.  
The proposed AD is needed to prevent  
fire in the low pressure turbine (LPT)  
rotor cavity, which could result from a  
build up of combustible fuel/oil vapors  
due to a failed main fuel/oil heat  
exchanger. A fire in the LPT rotor cavity  
could lead to an uncontained LPT rotor  
failure.

**DATE:** Comments must be received on or  
before January 23, 1990.

**ADDRESSES:** Comments on the proposal  
may be mailed in duplicate to Federal  
Aviation Administration, New England  
Region, Office of the Assistant Chief  
Counsel, Attn: Rules Docket No. 89-  
ANE-07, 12 New England Executive  
Park, Burlington, Massachusetts 01803,  
or delivered in duplicate to Room 311, at  
the above address.

Comments delivered must be marked:  
Docket No. 89-ANE-07.

Comments may be inspected at the  
New England Region, Office of the  
Assistant Chief Counsel, Room 311,  
between the hours of 8:00 a.m. and 4:30  
p.m., Monday through Friday, except  
federal holidays.

The applicable manufacturer's service  
bulletin (SB) may be obtained from  
General Electric Company, Technical  
Publications Department, 1 Neumann

Way, Cincinnati, Ohio 45215, or may be  
examined in the Regional Rules Docket.

##### **FOR FURTHER INFORMATION CONTACT:**

Daniel Kerman, Engine Certification  
Branch, ANE-142, Engine Certification  
Office, Engine and Propeller Directorate,  
Aircraft Certification Service, Federal  
Aviation Administration, 12 New  
England Executive Park, Burlington,  
Massachusetts 01803; telephone (617)  
270-2410.

##### **SUPPLEMENTARY INFORMATION:**

Interested persons are invited to  
participate in the making of the  
proposed rule by submitting such  
written data, views, or arguments as  
they may desire. Communications  
should identify the regulatory docket  
number and be submitted in duplicate to  
the address specified above. All  
communications received on or before  
the closing date for comments will be  
considered by the FAA before any final  
action is taken on the proposed rule. The  
proposal contained in this notice may be  
changed in light of comments received.

Comments are specifically invited on  
the overall regulatory, economic,  
environmental, and energy aspects of  
the proposed rule. All comments  
submitted will be available, both before  
and after the closing date for comments,  
in the Rules Docket at the address given  
above, for examination by interested  
persons. A report summarizing each  
FAA-public contact, concerned with the  
substance of the proposed AD, will be  
filed in the Rules Docket.

Commenters wishing the FAA to  
acknowledge receipt of their comments  
submitted in response to this notice  
must submit a self-addressed, stamped  
postcard on which the following  
statement is made: Comments to Docket  
No. 89-ANE-07. The postcard will be  
date/time stamped and returned to the  
commenter.

The FAA has determined that the  
build up of fuel/oil vapors in the LPT  
rotor cavity, due to a failed main fuel/oil  
heat exchanger, can result in a fire and  
possible uncontained LPT failure. There  
has been an incident in which the failure  
of a main fuel/oil heat exchanger  
resulted in an uncontained LPT failure  
and in-flight shutdown due to a fire in the  
LPT rotor cavity. Internal leakage of the  
heat exchanger resulted in the build up  
of a combustible fuel/oil mixture. The  
FAA has also determined that this  
engine configuration did not have a  
center vent tube extension, thus the  
volatile vapors were not vented  
overboard. The addition of the center  
vent tube extension assembly will  
exhaust/isolate any sump fumes from  
the LPT cavity aft of the "D" sump. This



is accomplished by extending the present center vent system through the LPT rotor and through the "D" sump either on wing or at next engine shop visit. Since this condition is likely to exist or develop on other engines of the same type design, the proposed AD would require installation of a center vent tube extension in the LPT rotor cavity on GE CF6-50/-45 series turbofan engines.

The regulations proposed herein would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this proposed regulation involves approximately 397 engines, at a cost of approximately \$13,500.00 per engine. It has also been determined that few, if any, small entities within the meaning of the Regulatory Flexibility Act will be affected since the proposed rule affects only operators using aircraft in which GE CF6-50/-45 engines are installed, none of which is believed to be a small entity. Therefore, I certify that this action (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal; and (4) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, and Safety.

#### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration (FAA) proposes to amend part 39 of the Federal Aviation Regulations (FAR) as follows:

#### PART 39—[AMENDED]

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

#### § 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive (AD):

**General Electric:** Applies to General Electric (GE) CF6-50/-45 series turbofan engines.

Compliance is required in accordance with the accomplishment instructions contained in GE Service Bulletin (SB) 72-395, Revision 3, dated June 30, 1989, at next shop visit after the effective date of this AD, but not later than January 1, 1992, unless already accomplished.

**Note:** Shop visit for the purposes of this AD is defined as induction of the engine into the shop for performance of maintenance.

To prevent failure of the low pressure turbine (LPT) due to a fire in the LPT rotor cavity, accomplish the following:

(a) Install the center vent tube extension assembly.

(b) Aircraft may be ferried in accordance with the provisions of FAR 21.197 and 21.199 to a base where the AD can be accomplished.

(c) Upon submission of substantiating data by an owner or operator through an FAA Airworthiness Inspector, the Manager, Engine Certification Office, Engine and Propeller Directorate, Aircraft Certification Service, Federal Aviation Administration, 12 New England Executive Park, Burlington, Massachusetts 01803, may adjust the compliance time specified in this AD or approve an equivalent means of compliance with this AD.

Issued in Burlington, Massachusetts, on July 24, 1989.

Jack A. Sain,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 89-27401 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-13-M

#### DEPARTMENT OF COMMERCE

#### Bureau of Export Administration

#### 15 CFR Part 791

[Docket No. 91162-9262]

RIN 0694-AA10

#### Revision of Foreign Availability Regulations

**AGENCY:** Bureau of Export Administration, Commerce.

**ACTION:** Proposed rule and request for comments.

**SUMMARY:** The Office of Foreign Availability (OFA) is proposing to revise part 791, "Foreign Availability," of the Export Administration Regulations. This revision is necessary in order to conform to requirements of the Omnibus Trade and Competitiveness Act of 1988 that affect the Foreign Availability program, and to reflect the Bureau's experience with the program.

**DATE:** All comments must be received by January 8, 1990.

**ADDRESS:** Written comments should be sent to: Dr. Irwin M. Pikus, Director of the Office of Foreign Availability, Room SB-701, 14th Street and Pennsylvania Avenue NW., Department of Commerce, Bureau of Export Administration, Washington, DC 20230.

The public record concerning this notice will be maintained in the Bureau of Export Administration's Freedom of Information Records Inspection Facility, Room 4886, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue NW., Washington, DC 20230.

Comments regarding the burden estimate for the collection of the information should be sent to the Office of Security and Management Support, Bureau of Export Administration, U.S. Department of Commerce, Washington, DC 20230; to the Office of Management and Budget, Paperwork Reduction Project (0694-0004), Washington, DC 20503; and the Director of the Office of Foreign Availability at the above address.

#### FOR FURTHER INFORMATION CONTACT:

Joan M. Roberts, Office of Foreign Availability, U.S. Department of Commerce, Washington, DC 20230, Telephone (202) 377-8074.

#### SUPPLEMENTARY INFORMATION:

Under section 5 (f) and (h) of the Export Administration Act of 1979, as amended (EAA), the Office of Foreign Availability (OFA) assesses foreign availability. Part 791 of the Export Administration Regulations (EAR) establishes procedures and criteria for initiating and reviewing claims of foreign availability on items controlled for national security purposes.

With this notice the Department is proposing to revise part 791 of the EAR. Comments from the public are desired concerning the proposed revisions. A person wishing to submit relevant information may submit it to OFA, Department of Commerce. OFA will carefully and fully consider all information received.

#### Background

The revision of the foreign availability regulations (part 791, EAR), is necessary because of legislative changes to the program by the Omnibus Trade and Competitiveness Act of 1988, (the "Trade Act"), and OFA's own experiences with the program. It is expected that this revision will improve the Foreign Availability process and the effectiveness of the program, thereby



enhancing national security and improving U.S. competitiveness.

In September 1988, the Department published a *Federal Register* notice (53 FR 36007, September 16, 1988) that amended the regulations by providing examples of evidence that claimants could provide to support claims of foreign availability. That notice sought public comment; however, the Department did not receive any. The Department has, therefore, incorporated the list of examples of evidence into part 791 of the regulations.

#### Omnibus Trade and Competitiveness Act of 1988

The Trade Act significantly amended section 5 (f) and (h) of the Export Administration Act of 1979. The major changes were:

- The creation of West-West foreign availability assessments both for decontrol and for denied licenses (section 5(f)(2) (A) and (B) of the EAA);
- The creation of an expedited licensing procedure for non-controlled countries (West-West) based upon foreign availability (section 5(f)(5) of the EAA);
- The establishment of new deadlines and the setting of consequences for failing to meet the statutory deadlines (i.e., automatic decontrol of the item) (section 5(f)(3)(B) of the EAA);
- A requirement for the publication of both the initiation of an assessment and the determination of foreign availability in the *Federal Register* (sections 5(f)(3)(B) and 5(f)(9) of the EAA);
- Different criteria for the different types of assessments (sections 5(f)(1) and (2) and 5(f)(5) of the EAA);
- The elimination of controls on items of equal or lower level of technology similar to items for which there is a finding of foreign availability (section 5(f)(8) of the EAA); and
- A definition of foreign availability for controlled countries and modifications of the definition for non-controlled countries (sections 5(f)(10) and 5(f)(2)(B) of the EAA).

The proposed regulations incorporate the above changes.

#### Rulemaking Requirements

1. This proposed rule is consistent with Executive Orders 12291 and 12661.

2. This proposed rule contains a collection of information subject to the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). The Office of Management and Budget has approved this collection under control number 0694-0004. Public

reporting for this collection of information is estimated to average three hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Security and Management Support, Bureau of Export Administration, U.S. Department of Commerce, Washington, DC 20230; and to the Office of Management and Budget, Paperwork Reduction Project (0694-0004), Washington, DC 20503.

3. This proposed rule does not contain policies with Federalism implications sufficient to warrant preparation of a Federalism Assessment under Executive Order 12612.

4. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule by section 553 of the Administrative Procedure Act (5 U.S.C. 553), or by any other law, under sections 603(a) and 604(a) of the Regulatory Flexibility Act (5 U.S.C. 603(a) and 604(a)) no initial or final Regulatory Flexibility Analysis has to be or will be prepared.

5. Section 13(a) of the Export Administration Act of 1979 (EAA), as amended (50 U.S.C. app. 2412(a)), exempts this rule from all requirements of section 553, including those requiring publication of a notice of proposed rulemaking, an opportunity for public comment, and a delay in effective date. Section 13(b) of the EAA does not require that this rule be published in proposed form because this rule does not impose a new control.

Further, no other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this rule.

However, because of the importance of the issues raised by these proposed regulations, the rule is issued in proposed form and comments will be considered in the development of the final regulations.

Written comments should be sent to: Dr. Irwin M. Pikus, Director of Foreign Availability, Room SB-701, 14th Street and Pennsylvania Avenue NW., Department of Commerce, Bureau of Export Administration, Washington, DC 20230.

The period for comments will close January 8, 1990. The Department of Commerce will consider all comments received before the close of the comment period in developing the final

regulations. Comments received after the end of the comment period will be considered if possible, but their consideration cannot be assured. Accordingly, the Department encourages interested persons who wish to comment to do so at the earliest possible time to permit the fullest consideration of their views.

The Department will not accept public comments accompanied by a request that part or all of the material be treated confidentially because of its business proprietary nature or for any other reason.

The Department will return such comments and materials to the person submitting the comments and will not consider them in the development of final regulations.

All public comments on these regulations will be a matter of public record and will be available for public inspection and copying. In the interest of accuracy and completeness, the Department requires comments in written form. Oral comments must be followed by written memoranda, which will also be a matter of public record and will be available for public review and copying. Communications from agencies of the United States Government or foreign governments will not be made available for public inspection.

The public record concerning these regulations will be maintained in the Bureau of Export Administration Freedom of Information Records Inspection Facility, Room 4886, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue NW., Washington, DC 20230. Records in this facility, including written public comments and memoranda summarizing the substance of oral communications may be inspected and copied in accordance with regulations published in part 4 of title 15 of the Code of Federal Regulations. Information about the inspection and copying of records may be obtained from: Margaret Cornejo, Bureau of Export Administration Freedom of Information Center, at the above address or by calling (202) 377-2593.

#### List of Subjects in 15 CFR Part 791

Exports, Foreign availability, Science and technology, Technical advisory committees.

Accordingly, the Export Administration Regulations (15 CFR part 791) are proposed to be amended as follows:

Part 791 is revised as follows:



# **PART 791—FOREIGN AVAILABILITY DETERMINATION PROCEDURES AND CRITERIA**

Sec.	
791.1	Introduction
791.2	Foreign Availability described
791.3	Foreign Availability assessment
791.4	Initiation of an assessment
791.5	Contents of Foreign Availability Submissions and Technical Advisory Committee Certifications
791.6	Criteria
791.7	Procedures
791.8	Eligibility for expedited licensing procedures for non-controlled countries
791.9	Appeals of negative Foreign Availability determinations
791.10	Removal of controls on less sophisticated items
Supplement No. 1	Evidence of Foreign Availability
Supplement No. 2	Items Eligible for Expedited Licensing Procedures [Reserved]

**Authority:** Pub. L. 96-72, 93 Stat. 503 (50 U.S.C. app. 2401 *et seq.*), as amended by Pub. L. 97-145 of December 29, 1981, by Pub. L. 99-64 of July 12, 1985, and by Pub. L. 100-418 of August 23, 1988; E.O. 12525 of July 12, 1985 (50 FR 28757, July 16, 1985); Pub. L. 95-233 of December 28, 1977 (50 U.S.C. 1701 *et seq.*); E.O. 12532 of September 9, 1985 (50 FR 36861, September 10, 1985), as affected by notice of September 4, 1986 (51 FR 31925, September 8, 1986); Pub. L. 99-440 of October 2, 1986 (22 U.S.C. 5001 *et seq.*); and E.O. 12571 of October 27, 1986 (51 FR 39505, October 29, 1986).

## **§ 791.1 Introduction.**

(a) **Authority.** Pursuant to sections 5(f) and 5(h) of the Export Administration Act of 1979, as amended (EAA), the Under Secretary of Commerce for Export Administration directs the Office of Foreign Availability (OFA) in gathering and analyzing all the evidence necessary for the Secretary to determine foreign availability.

(b) **Scope.** These regulations apply only to the extent that items are controlled for national security purposes.

(c) **Types of programs.** There are two general programs of Foreign Availability:

(1) Foreign Availability to a controlled country. In this category are Denied License Assessments (see §§ 791.4(b) and 791.7) and Decontrol Assessments (see §§ 791.4(c) and 791.7).

(2) Foreign Availability to a non-controlled country. In this category are Denied License Assessments, Decontrol Assessments, and Evaluations of Eligibility for Expedited Licensing (see § 791.8).

(d) **Definitions.** The following are definitions of terms used in this part 791:

**Allegation:** See Foreign Availability Submission.

**Applicant:** Any person or firm as defined in § 770.2.

**Assessment:** An evidentiary analysis that OFA conducts concerning the foreign availability of a given item in light of the Assessment Criteria and the data and recommendations submitted by the Departments of Defense and State and other relevant departments and agencies, TAC committees, and industry.

**Assessment Criteria:** Statutorily established criteria that must be assessed for the Secretary to make a Determination with respect to foreign availability. The are "available-in-fact", "from a non-U.S. source", "in sufficient quantity so as to render the control ineffective", and "of comparable quality". (See § 791.6)

**Available-in-fact:** An item is available-in-fact to a country if it is produced within the country or if it may be obtained by that country from a third country. (Ordinarily, items will not be considered available-in-fact to Non-controlled Countries that are available only under a validated national security license or a comparable authorization from a country that maintains export controls on such items cooperatively with the U.S. pursuant to the agreement of the group known as COCOM, or pursuant to an agreement under section 5(k) of the EAA ("COCOM" and "Cooperating Third Countries").) Items which are available only under a U.S. license for export or re-export are not considered available-in-fact.

**Certification:** A Technical Advisory Committee's statement pursuant to section 5(h)(6) of the EAA concerning the Foreign Availability of an item and the accompanying documentation for such a statement.

**Claimant:** Any applicant who makes a Foreign Availability Submission.

**Comparable Quality:** An item is of Comparable Quality to an Item controlled under these regulations if it possesses the characteristics specified in the Commodity Control List for that Item and is alike in key characteristics that include, but are not limited to:

- (1) Function;
- (2) technological approach;
- (3) performance thresholds;
- (4) maintainability and service life; and
- (5) any other attribute relevant to the purpose for which the control was placed on the commodity.

**Controlled Countries:** The Controlled Countries are: Albania, Bulgaria, Cambodia, Cuba, Czechoslovakia, Estonia, the German Democratic Republic (including East Berlin), Hungary, Laos, Latvia, Lithuania, Mongolian People's Republic, North

Korea, Poland, Romania, the USSR, and Vietnam, and the People's Republic of China (PRC).

**Decontrol:** Removal of validated license requirements under the Export Administration Regulations (EAR).

**Decontrol Assessment:** An Assessment of the foreign availability of an Item to a country or countries for purposes of determining whether Decontrol is warranted. Such Assessments may be conducted after the Department receives a Foreign Availability Submission or a TAC Certification, or by the Secretary on his own initiative.

**Denied License Assessment:** A foreign availability Assessment conducted as a result of an Applicant's Allegation of foreign availability for an Item (or Items) for which the Department of Commerce has denied or intends to deny an export license. If the Secretary finds foreign availability, the Department's approval of a validated license will be limited to the Items, countries, and quantities in the application.

**Determination:** The Secretary's decision that foreign availability within the meaning of the EAA does or does not exist. The Determination may be preliminary or it may be final. (See § 791.7)

**Expedited Licensing Eligibility Procedure Evaluation:** An evaluation that OFA initiates for the purpose of determining whether an Item is eligible for the Expedited Licensing Procedure. (See § 791.8)

**Expedited Licensing Procedures:** Under Expedited Licensing Procedures, the Office of Export Licensing (OEL) reviews and processes an individual validated license application for the export of an eligible Item to a Non-controlled Country within statutory time limits. Licenses are deemed approved unless the OEL complies with the statutory time limits. (See § 791.8)

**Foreign Availability Submission (FAS):** An Allegation makes of foreign availability, supported by Reasonable Evidence, and submits to OFA. (See § 791.5)

**Item:** Any good, technical data or software.

**Item Eligible for Non-Controlled Country:** Expedited Licensing Procedures: An Item is eligible for Expedited Licensing Procedures if it is described as such in Supplement No. 2 of section 791 of the EAR. (See § 791.8.)

**National Security Override (NSO):** A Presidential decision to maintain export controls on an Item notwithstanding its foreign availability as determined under the EAA. The President's decision is



based on a determination that the absence of the controls would prove detrimental to the national security of the United States. Once the President makes such a decision, he must actively pursue negotiations to eliminate foreign availability with the governments of the sources of foreign availability. (See § 791.7.)

**Non-controlled Countries:** Any country not listed as a Controlled Country.

**Non-U.S. Source/Foreign Source:** A person located outside the United States (as defined in § 770.2 of the EAR) that makes available an Item.

**Reasonable evidence:** Relevant information that is credible.

**Reliable Evidence:** Relevant information that is credible and dependable.

**Secretary:** As used in this regulation, the Secretary refers to the Secretary of Commerce or his designee.

**Similar Quality:** An Item is of Similar Quality to an Item that is controlled under the EAR if it is substantially alike in key characteristics may that include, but are not limited to:

- (1) Function;
- (2) technological approach;
- (3) performance thresholds;
- (4) maintainability and service life;
- and
- (5) any other attribute relevant to the purpose for which the control was placed on the commodity.

**Sufficient Quantity:** The amount of an Item that would render the U.S. export control, or the denial of the export license in question, ineffective in achieving its purpose with respect to a particular country or countries. For a Controlled Country, it is the quantity that meets the military needs of that country so that U.S. exports of the item to that country would not make a significant contribution to its military potential.

**Technical Advisory Committee (TAC):** A Committee created under section 5(h) of the EAA that advises and assists the Secretary of Commerce, the Secretary of Defense, and any other department, agency, or official of the Government of the United States to which the President delegates authority under the Export Administration Act on export control matters related to specific areas of controlled goods and technology.

**TAC Certification:** A statement that a TAC submits to OFA, supported by Reasonable Evidence, documented as in a Foreign Availability Submission, that foreign availability to a Controlled Country exists for an item that falls within the TAC's area of technical expertise.

#### § 791.2 Foreign availability described.

(a) Foreign Availability exists when the Secretary determines that an item is comparable in quality to an item subject to U.S. national security export controls, is available-in-fact to a country, is from a non-U.S. source, and is in sufficient quantities to render the U.S. export control on that item or the denial of an export license ineffective. For a Controlled Country, such control or denial is "ineffective" when comparable items are available-in-fact from foreign sources in sufficient quantities so that maintaining such control or denying a license would not be effective in restricting the export of goods or technology which would make a significant contribution to the military potential of any other country or combination of countries which would prove detrimental to the national security of the United States. If the Secretary determines that foreign availability exists, the Secretary will decontrol the item or approve the license in question, unless the President exercises a National Security Override. (See § 791.7.)

(b) *Types of foreign availability.*

There are two types of Foreign Availability:

- (1) Foreign Availability to a controlled country; and
- (2) Foreign Availability to a non-controlled country. (See § 791.7 for delineation of the Foreign Availability assessment procedures, and § 791.6 for the criteria used in determining Foreign Availability.)

#### § 791.3 Foreign availability assessment.

(a) A Foreign Availability assessment is an evidentiary analysis that OFA (OFA) conducts to assess the foreign availability of a given item under the assessment criteria. OFA uses the results of the analysis in formulating its recommendation to the Secretary on whether foreign availability exists for a given item. If the Secretary determines that Foreign Availability exists, the Secretary will decontrol the item or approve the license in question, unless the President exercises a National Security Override. (See § 791.7.)

(b) *Types of assessments.* There are two types of foreign availability assessments:

- (1) Denied License Assessment; and
- (2) Decontrol Assessment.

(c) See § 791.8 for the evaluation of eligibility of an item for the Expedited Licensing Procedures.

#### § 791.4 Initiation of an assessment.

(a) *Assessment request.* To initiate an assessment an applicant, claimant or Technical Advisory Committee must

submit a Foreign Availability Submission or a TAC Certification of Foreign Availability to OFA. Technical Advisory Committees can only make certifications of foreign availability for controlled countries. Any denied license applicant or a claimant can allege foreign availability for either controlled or non-controlled countries.

(b) *Denied license assessment.* An export license applicant whose export license the Department of Commerce has denied, or intends to deny on national security grounds may request OFA to initiate a Denied License Assessment by submitting a Foreign Availability Submission within 90 days of denial of the export license. As part of the Submission, the claimant must request that the specified license application be approved on the grounds of foreign availability. The evidence must relate to the particular export as described on the license application and to the alleged comparable item. If foreign availability is found, the Secretary will approve the validated license (or a request for reexport authorization) for the specific items, countries, and quantities listed on the application. The Denied License Assessment procedure, however, is not intended to trigger the removal of the U.S. export control on an item by incrementally providing a country with amounts that taken together would constitute a sufficient quality of an item. The Secretary will not approve on foreign availability grounds a denied export license (or a denied request for re-export authorization) if the approval of such license would itself render the U.S. export control ineffective in achieving its purpose with respect to a particular country or countries. Moreover, the Secretary will determine whether on the basis of the Denied License Assessment a Decontrol Assessment is warranted. If so, then OFA will initiate a Decontrol Assessment.

(c) *Decontrol assessment.* (1) Any claimant may at any time request OFA to initiate a Decontrol Assessment by making a Foreign Availability Submission alleging foreign availability to any country or countries to OFA.

(2) A TAC may request OFA to initiate a Decontrol Assessment at any time by submitting a TAC Certification to OFA that there is foreign availability to a controlled country for items that fall within the area of the TAC's technical expertise.

(3) The Secretary, on his own initiative, may initiate a Decontrol Assessment.



(d) All Foreign Availability Submissions and Certifications are to be submitted to: Director, Office of Foreign Availability, Room SB 097, Bureau of Export Administration, Department of Commerce, 14th and Pennsylvania Ave. NW., Washington, DC 20230.

**§ 791.5 Contents of foreign availability submissions and technical advisory committee certifications.**

(a) All Submissions must contain at least:

- (1) The name of the claimant;
- (2) The claimant's mailing and business address;
- (3) The claimant's telephone number; and
- (4) A contact point and telephone number.

(b) Foreign Availability Submissions and TAC Certifications should contain as much evidence as is available to support the claim, including, but not limited to:

- (1) Product names and model designations of the items alleged to be comparable;
- (2) Extent to which the alleged comparable item is based on U.S. technology;
- (3) Names and locations of the non-U.S. sources and the basis for claiming that the item is a non-U.S. source item;
- (4) Key performance elements, attributes, and characteristics of the items on which a qualitative comparison may be made;
- (5) Non-U.S. sources' production quantities and/or sales of the alleged comparable items and marketing efforts;
- (6) Estimated market demand and the economic impact of the control;
- (7) Product names, model designations, and value of U.S. controlled parts and components incorporated in the item alleged to be comparable; and
- (8) The basis for the claim that the item is available-in-fact to the country or countries for which foreign availability is alleged.

(c) Supporting evidence of foreign availability may include, but is not limited to, the following: Foreign manufacturers' catalogs, brochures, operation or maintenance manuals; articles from reputable trade and technical publications; photographs; depositions based on eyewitness accounts; and other credible evidence. Examples of supporting evidence are provided in Supplement No. 1 of this part 791.

(d) Upon receipt of a Submission or TAC Certification, OFA will review it to determine whether there is sufficient evidence to support the belief that Foreign Availability may exist. If OFA

finds the Submission or Certification to be lacking in supporting evidence, the Office will request additional evidence from the Claimant or Technical Advisory Committee. OFA will accept the Submission or Certification and will initiate the assessment when it determines that it has received sufficient evidence of that Foreign Availability supporting the belief that Foreign Availability may exist. For Claimant and TAC Committee initiated assessments, the time for conducting the Foreign Availability Assessment begins from the date of such determination.

(e) Claimants and TACs are advised to review the foreign availability assessment criteria delineated in § 791.6 of the EAR and the examples of evidence set forth in Supplement No. 1 to this part 791 when assembling supporting evidence for inclusion in the Submission or Certification.

**§ 791.6 Criteria.**

(a) OFA evaluates the evidence contained in a Submission or Certification and all other evidence gathered in the assessment process in light of certain criteria that must be met before OFA can recommend a determination that foreign availability does or does not exist. In order to initiate an assessment, a Foreign Availability Submission or TAC Certification should address each of these criteria. The criteria are statutorily prescribed and are:

- (1) Available-in-fact,
- (2) non-U.S. source,
- (3) sufficient quantity, and
- (4) comparable quality.

The criteria are defined in Section 791.1(d) of these regulations.

**§ 791.7 Procedures**

(a) *Initiation of an assessment.* (1) Once OFA accepts a Submission or Certification of Foreign Availability, OFA will notify the claimant that it is initiating the assessment.

(2) The Bureau of Export Administration will publish in the *Federal Register* a notice that it received a Submission or TAC Certification and initiated an assessment.

(3) The Bureau of Export Administration will publish a *Federal Register* notice of the initiation of any assessment.

(4) OFA will notify the Departments of Defense and State, the intelligence community, and any other departments, agencies and their contractors that may have information concerning the item on which OFA has initiated an assessment. Each such department, agency, and contractor shall provide to OFA all relevant information that it has

concerning the item. OFA will invite interested departments and agencies to participate in the assessment process (See § 791.7(e) for details).

(b) *Data gathering.* OFA will seek and consider all available information that bears upon the presence or absence of foreign availability including but not limited to that evidence set out in § 791.5 (b) and (c) of these regulations. As soon as Commerce initiates the assessment, it will seek evidence relevant to the assessment, including an analysis of the military needs of a selected country or countries, technical analysis, and intelligence information from the Departments of Defense and State, and other U.S. agencies. Evidence is particularly sought from industry sources worldwide; other U.S. organizations; foreign governments; commercial, academic and classified data bases; scientific and engineering research and development organizations; and international trade fairs.

(c) *Analysis.* OFA conducts its analysis by evaluating whether the reasonable and reliable evidence that is relevant to each of the foreign availability criteria provides a sufficient basis for a recommendation for a determination that foreign availability does or does not exist.

(d) *Recommendation and preliminary determination.* (1) Upon completion of each assessment, OFA, on the basis of its analysis, recommends to the Secretary of Commerce that he make a determination either that there is or that there is not foreign availability, whichever the evidence supports. OFA's assessment upon which OFA based its recommendation accompanies the recommendation to the Secretary.

(2) OFA will recommend on the basis of its analysis that the Secretary determine that foreign availability exists to a country when the available evidence demonstrates that an item of comparable quality is available-in-fact to the country, from non-U.S. sources, in sufficient quantity so that continuation of the existing export control, or denial of the license application in question would be ineffective in achieving its purpose. For a controlled country, such control or denial is "ineffective" when comparable items are available-in-fact from foreign sources in sufficient quantities so that maintaining such control or denying a license would not be effective in restricting the export of goods and technology which would make a significant contribution to the military potential of any other country or combination of countries which



would prove detrimental to the national security of the United States.

(3) The Secretary makes his determination of foreign availability on the basis of the OFA assessment and recommendation; the Secretary's determination takes into account the evidence provided to OFA, the recommendations of the Secretaries of Defense and State and any other interested agencies, and any other information that the Secretary considers relevant.

(4) For all Decontrol and Denied License Assessments (pursuant to section 5(f)(3) of the EAA) initiated by a Foreign Availability Submission, the Secretary makes a preliminary or initial determination within four months of the initiation of the assessment, and so notifies the applicant. The Secretary submits positive preliminary determinations for review to appropriate departments and agencies.

(5) For self-initiated or TAC-initiated decontrol assessments there is no preliminary determination; the deadlines for self-initiated and TAC-initiated assessments also are different than the deadlines for claimant-initiated assessments (See § 791.7(f) (2) and (3)).

(e) *Interagency review.* Commerce notifies all appropriate U.S. agencies and Departments upon the initiation of the assessment and invites them to participate in the assessment process. For claimant-initiated assessments, the Secretary of Commerce provides a copy of all positive recommendations and assessments to interested agencies and departments for their review following the Secretary's preliminary determination of foreign availability. For self-initiated and TAC-initiated assessments, the Secretary will provide all interested agencies an opportunity to review and comment on the assessment.

(f) *Final determination and notification.* (1) For assessments initiated by a Foreign Availability Submission (claimant assessments), the Secretary makes a final determination of foreign availability for all Decontrol and Denied License Assessments no later than one month following his preliminary determination, and informs the applicant in writing. The Bureau of Export Administration submits for publication in the *Federal Register* a notice to the effect that:

(i) Foreign availability exists, and

(A) The requirement of a validated license has been removed or the license application in question has been approved; or

(B) The President has determined that for national security purposes the export controls must be maintained or the license application must be denied,

notwithstanding foreign availability, and that appropriate steps to eliminate the foreign availability are being initiated; or

(C) In the case of an item controlled multilaterally under COCOM, the U.S. Government will submit the proposed decontrol or approval of the license for COCOM review for a period of up to four months from the date of the publication of the determination in the *Federal Register* (The U.S. Government may remove the validated license requirement for exports to non-controlled countries pending completion of the COCOM review process.); or

(ii) Foreign availability does not exist.

(2) For all TAC Certification Assessments, the Secretary makes a foreign availability determination within 90 days following initiation of the assessment. OFA prepares and submits a report to the TAC and to the Congress stating that:

(i) The Secretary has found foreign availability and has removed the requirement of a validated export license; or

(ii) The Secretary has found foreign availability, but has recommended to the President that negotiations be undertaken to eliminate the foreign availability; or

(iii) The Secretary has not found foreign availability.

(3) For self-initiated assessments there is no established deadline for a foreign availability determination; however, the Department is committed to making and publishing the foreign availability determination for self-initiated assessments within 6 months upon initiation of the assessment.

(g) *COMCOM review.* When the Secretary determines that a COCOM-controlled item is available to a controlled country, OFA submits the determination to the Department of State, along with a draft proposal for the multilateral decontrol of the item or for COCOM approval of the license. The Department of State submits the proposal or the license to the COCOM review process. COCOM has up to four months for review of the proposal.

(h) *Negotiations to eliminate foreign availability.* (1) The President may determine that an export control must be maintained notwithstanding the existence of foreign availability. Such a determination is called a National Security Override (NSO) and is based on the President's decision that the absence of the control would prove detrimental to the United States national security. Unless extended (as described in paragraph (h)(7) of this section), and NSO is effective for six months. Where the President invokes an

NSO, the U.S. Government will actively pursue negotiations with the government of any source country during the six month period to eliminate the availability.

(2) There are two types of National Security Overrides:

(i) An NSO of a determination of foreign availability resulting from an assessment initiated pursuant to Section 5(f) of the EAA (claimant and self-initiated assessments); and

(ii) An NSO of a determination of foreign availability resulting from an assessment initiated pursuant to Section 5(h) of the EAA (TAC-certification assessments).

(3) For an NSO resulting from an assessment initiated pursuant to section 5(f) of the EAA, the Secretary of any agency may recommend that the President exercise his authority under the Act to retain the controls notwithstanding the finding of foreign availability.

(4) For an NSO resulting from an assessment initiated pursuant to section 5(h) of the EAA, the Secretary of Commerce may recommend that the President exercise his authority under the Act to retain the controls notwithstanding the finding of foreign availability.

(5) Under an NSO resulting from an assessment initiated pursuant to section 5(f) of the EAA, the President will notify, in writing, the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on Foreign Affairs of the House of Representatives that he has initiated the required negotiations. The notice will include an explanation of the national security interest that necessitates the retention of controls.

(6) Under an NSO resulting from an assessment initiated pursuant to section 5(f) of the EAA, the Bureau of Export Administration will publish notices in the *Federal Register* of:

(i) The Secretary's determination of foreign availability,

(ii) The President's decision to exercise the National Security Override,

(iii) a concise statement of the basis for the President's decision, and

(iv) an estimate of the economic impact of the decision.

(7) The six month effective period for an NSO may be extended up to an additional 12 months if prior to the end of the 6 months the President certifies to Congress that the negotiations are progressing, and if he determines that the absence of the controls would continue to be detrimental to the United States national security.



(8) After the conclusion of negotiations, the Department of Commerce will retain the control only to the extent that foreign availability is eliminated. If foreign availability is not eliminated, the Department of Commerce will decontrol the item by removing the requirement for a validated export license for the export of the item to the destinations covered by the assessment. To the extent that the negotiations are successful and the foreign availability is eliminated, Commerce will remove the validated license requirement for the export of the item to any country that is party to the agreement to eliminate foreign availability.

(i) *Changes in foreign availability.* If OFA becomes aware of conditions, including new evidence, that casts doubt upon a previous determination that foreign availability exists or does not exist, the Office of Foreign Availability may review the evidence. If the Office finds that the foreign availability previously determined no longer exists, or that foreign availability not earlier found now does exist, the Office will make a recommendation to the Secretary of Commerce for the appropriate changes in the control. The Secretary of Commerce will make a determination, and the Bureau of Export Administration will publish a Federal Register notice of his determination.

#### § 791.8 Eligibility for expedited licensing procedures for non-controlled countries.

(a) OFA determines the eligibility of an item for Expedited Licensing Procedures on the basis of an evaluation of the foreign availability of the item. Eligibility is specific to the items and the countries to which they are found to be available.

(b) OFA will initiate an eligibility evaluation:

- (1) On its own initiative;
- (2) On receipt of a Foreign Availability Submission; or
- (3) On receipt of a TAC certification.

(c) Upon initiation of an eligibility evaluation following receipt of either a Foreign Availability Submission or TAC Certification, the Bureau of Export Administration will notify the claimant or TAC of the receipt and initiation of an evaluation and publish a Federal Register notice of the initiation of the evaluation.

(d) The criteria for determining eligibility for Expedited Licensing Procedures are:

- (1) The item must be available-in-fact to the specified non-controlled country from a foreign source;

(2) The item must be of a quality similar to that of the U.S. controlled item; and

(3) The item must be available-in-fact to the specified non-controlled country without effective restrictions.

(e) Within 30 days of initiation of the evaluation, the Secretary of Commerce makes a determination of foreign availability on the basis of the OFA evaluation and recommendation which takes into account the evidence the Secretaries of Defense, State, and other interested agencies provided to OFA and any other information that the Secretary considers relevant. The Secretary of Commerce will provide all interested agencies an opportunity to review and comment on the evaluation.

(f) Within 30 days of the receipt of the Foreign Availability Submission or TAC Certification, the Bureau of Export Administration will publish the Secretary's determination in the *Federal Register*, inform the Office of Export Licensing that the item is/is not eligible for expedited licensing procedures to the stated countries, and, where appropriate, amend Supplement No. 2 part 791.

(g) Following completion of a self-initiated evaluation, OFA will notify the Office of Export Licensing of the Secretary's determination and, where appropriate, amend Supplement No. 2 to part 791. (Items exported to countries listed in Supplement No. 2 to 791 will be licensed in accordance with the procedures in Section 770.14, except that the initial licensing action will be within 20 working days.)

(h) Submissions and Certifications to initiate an Expedited Licensing Procedure evaluation must be clearly designated on their face as a request for Expedited Licensing Procedure purposes, must specify the items, quantities and countries alleged eligible, and should be sent to: Director, Office of Foreign Availability, Room SB 097, Bureau of Export Administration, Department of Commerce, 14th and Pennsylvania Ave. NW, Washington, DC 20230.

#### § 791.9 Appeals of negative foreign availability determinations.

Appeals of negative determinations will be conducted according to the standards and procedures set forth in 15 CFR part 789. A Presidential decision (NSO) to deny a license or continue controls notwithstanding a determination of foreign availability shall not be subject to appeal.

#### § 791.10 Removal of controls on less sophisticated items.

Where the Secretary has decontrolled an item for foreign availability reasons, he will also remove national security controls on similar items that are controlled for national security reasons and whose function, technological approach, performance thresholds, and other attributes that form the basis for national security export controls do not exceed the technical parameters of the item that Department of Commerce has decontrolled for foreign availability reasons.

#### Supplement No. 1 to Part 791—Evidence of Foreign Availability

Below is a list of examples of evidence that the Office of Foreign Availability has found useful in conducting assessments of foreign availability. A claimant submitting evidence supporting a claim of foreign availability should review this list for suggestions as evidence is collected.

Acceptable evidence indicating possible foreign availability is not limited to these examples, nor is any one of these examples, usually, in and of itself, necessarily sufficient to meet a foreign availability criterion. A combination of several types of evidence for each criterion usually is required. A Foreign Availability Submission should include as much evidence as possible on all four of the criteria listed below. OFA combines the submitted evidence with the evidence that it collects from other sources. OFA evaluates all evidence, taking into account factors that may include, but are not limited to: information concerning the source of the evidence, corroborative or contradictory indications, and experience concerning the reliability or reasonableness of such evidence. OFA will assess all relevant evidence to determine whether each of the four criteria has been met. Where possible, all information should be in writing. If information is based on third party documentation, the submitter should provide such documentation to OFA. If information is based on oral statements a third party made, the submitter should provide a memorandum of the conversation to OFA if the submitter cannot obtain a written memorandum from the source.

OFA will amend this informational list as it identifies new examples of evidence.

#### Examples of Evidence of Foreign Availability

The following are intended as examples of evidence that OFA will



consider in evaluating foreign availability. OFA will evaluate all evidence according to the provisions in § 791.7(c) in order for it to be used in support of a foreign availability determination. This list is illustrative only.

#### *Available-in-Fact*

- Evidence of marketing of an item in a foreign country (e.g., an advertisement in the media of the foreign country that the item is for sale there);
- Copies of sales receipts demonstrating sales to foreign countries;
- The terms of a contract under which the item has been or is being sold to a foreign country;
- Information, preferably in writing, from an appropriate foreign government official that the government will not deny the sale of an item it produces to another country in accordance with its laws and regulations;
- Information, preferably in writing, from a named company official that the company legally can and would sell an item it produces to a foreign country;
- Evidence of actual shipments of the item to foreign countries (e.g., shipping documents, photographs, news reports);
- An eyewitness report of such an item in operation in a foreign country, providing as much information as available, including where possible the make and model of the item and its observed operating characteristics;
- Evidence of the presence of sales personnel or technical service personnel in a foreign country;
- Evidence of production within a foreign country;
- Evidence of the item being exhibited at a trade fair in a foreign country, particularly for the purpose of inducing sales of the item to the foreign country;
- A copy of the export control laws or regulation of the source country which shows that the item is not controlled;
- A catalog or brochure indicating the item is for sale in a specific country.

#### *Foreign (Non-U.S.) Source*

- Names of foreign manufacturers of the item including, and if possible, addresses and telephone numbers;
- A report from a reputable source of information on commercial relationships that a foreign manufacturer is not linked financially or administratively with a U.S. company;
- A list of the components in the U.S. item and foreign item indicating model numbers and their sources;

- A schematic of the foreign item identifying its components and their sources;
- Evidence that the item is a direct product of foreign technology (e.g., a patent law suit lost by a U.S. producer, a foreign patent);
- Evidence of indigenous technology, production facilities, and the capabilities at those facilities;
- Evidence that the parts and components of the item are of foreign origin or are exempt from U.S. export licensing requirements by the Parts and Components provision (§ 776.12).

#### *Sufficient Quantity*

- Evidence that foreign sources have the item in serial production;
- Evidence that the item or its products is used in civilian applications in foreign countries;
- Evidence that a foreign country is marketing in the specific country an item of its indigenous manufacture;
- Evidence of foreign inventories of the item;
- Evidence of excess capacity in a foreign country's production facility;
- Evidence that foreign countries have not targeted the item or are not seeking to purchase it in the West;
- An estimate by a knowledgeable source of the foreign country's needs;
- An authoritative analysis of the worldwide market (i.e., demand, population rate for the item for various manufactures, plant capacities, installed tooling monthly production rates, orders, sales and cumulative sales over 5-6 years).

#### *Comparable Quality*

- A sample of the foreign item;
- Operation or maintenance manuals of the U.S. and foreign items;
- Records or a statement from a user of the foreign item;
- A comparative evaluation, preferably in writing, of the U.S. and foreign items by, for example, a western producer or purchaser of the item, a recognized expert, a reputable trade publication, or independent laboratory;
- A comparative list identifying, by manufacturers and model numbers, the key performance components and the materials used in the item that qualitatively affect the performance of the U.S. and foreign items;
- Evidence of the interchangeability of U.S. and foreign items;
- Patent descriptions for the U.S. and foreign items;
- Evidence that the U.S. and foreign items meet a published industry, national, or international standard;

- A report or eyewitness account, by deposition or otherwise, of the foreign item's operation;
- Evidence concerning the foreign manufacturers' corporate reputation;
- Comparison of the U.S. and foreign end item(s) made from a specific commodity tool(s), technical data or device;
- Evidence of the reputation of the foreign item including, if possible, information on maintenance, repair, performance and other pertinent factors.

Supplement No. 2 to Part 791 Items Eligible for Expedited Licensing Procedures—[Reserved]

Dated: November 15, 1989.

James M. LeMunyon,  
Deputy Assistant Secretary For Export  
Administration.

[FR Doc. 89-27257 Filed 11-21-89; 8:45 am]  
BILLING CODE 3510-DT-M

## DEPARTMENT OF TRANSPORTATION

### Maritime Administration

[Docket No. R-129]

RIN 2133-AA81

### 46 CFR Part 308

### War Risk Insurance

**AGENCY:** Maritime Administration, DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Maritime Administration (MARAD) is proposing to amend the war risk insurance regulations (46 CFR part 308) to permit certain vessels registered in the Republic of the Marshall Islands (RMI) to become eligible to apply for war risk insurance. MARAD administers these regulations as a standby emergency program. Under the existing regulations only vessels registered under the laws of the United States, as well as certain vessels that are owned or controlled by U.S. citizens and registered under the laws of Panama, Honduras, Liberia and the Bahamas, are eligible to apply for war risk insurance interim binders. These interim binders insure vessels against liabilities resulting from war or warlike actions when commercial war risk insurance is unavailable on reasonable terms and conditions. The proposed amendment would make certain vessels registered in the RMI eligible for war risk insurance and subject to the same considerations now applicable to vessels registered under the laws of



Panama, Honduras, Liberia and the Bahamas.

**DATE:** Comments must be received on or before January 8, 1990.

**FOR FURTHER INFORMATION CONTACT:**

Edmond J. Fitzgerald, Director, Office of Trade Analysis and Insurance, Maritime Administration, Washington, DC 20590 or telephone (202) 366-2400.

**SUPPLEMENTAL INFORMATION:**

The Authority of the Secretary of Transportation (Secretary) to provide insurance and reinsurance under title XII, Merchant Marine Act, 1936, as amended, 46 App. U.S.C. 1281-1293 (Act), was extended by Public Law 101-115 which was enacted into law on October 13, 1989, and which will expire on June 30, 1995. Implementing war risk insurance regulations were reissued on December 9, 1985 (50 FR 50165) to provide the terms and conditions under which war risk insurance interim binders are issued for U.S.-flag vessels and certain foreign-flag vessels owned or controlled by U.S. citizens.

As authorized by section 1203 of the Act (46 App. U.S.C. 1283), the Secretary may provide war risk insurance adequate for the needs of the waterborne commerce of the United States, if such insurance coverage cannot be obtained on reasonable terms and conditions from companies authorized to conduct an insurance business in a state of the United States. The U.S. Government's war risk insurance program is a standby emergency program. It becomes effective simultaneously with the automatic termination of ocean marine commercial war risk insurance policies. Those policies are automatically terminated upon the outbreak of war, whether declared or not, between any of the five great powers (United States, United Kingdom, France, People's Republic of China, or the Union of Soviet Socialist Republics) or upon the hostile detonation of a weapon of war employing atomic or nuclear fission and/or fusion or other like reaction or radioactive force or matter.

This program makes it possible for applicants to obtain war risk insurance, underwritten by the U.S. Government, when such insurance is unavailable on reasonable terms and conditions in the commercial market. It assures the continued flow of essential U.S. trade, while protecting the shipowner from loss due to risks of war.

A war risk insurance interim binder is a contract under which the U.S. Government agrees to provide the applicant with war risk insurance coverage in the interim period, after termination of commercial insurance

coverage, for a fee and upon the conditions set forth in 46 App. U.S.C. 1282. An agent of MARAD issues the interim binders. War risk insurance interim binder coverage is available for hull, protection and indemnity and second seamen's (crew life, disability, loss of effects and detention).

In 1976, Public Law 94-523 amended the prior war risk authority (46 App. U.S.C. 1283) by requiring that the Secretary shall determine whether to grant war risk insurance or reinsurance to foreign-flag vessels based upon consideration of "the characteristics, the employment, and the general management of the vessel by the owner or charterer." This authority was reinstated in 1979 and 1985, and has been implemented by regulations published in the Federal Register on April 3, 1980 (45 FR 22041), and December 9, 1985 (50 FR 50165), respectively.

MARAD's implementing regulations restrict foreign-flag vessel eligibility for war risk insurance interim binders. They provide for a case-by-case review of foreign-flag vessels applying for war risk insurance binders to assure the continued delivery of important U.S. cargoes when commercial war risk insurance is unavailable and to make it possible for the U.S. Government to obtain the use of certain foreign-flag vessels under a Voluntary Contract of Commitment (VCC). Vessels now eligible to apply under MARAD regulations are those that are documented under the laws of the United States (except sport fishing vessels), as well as vessels not more than 20 years old that are registered under the laws of Panama, Honduras, Liberia and the Bahamas.

Vessels registered under the laws of the RMI would become eligible under this proposed rule. Owners of these foreign-flag vessels must be U.S. citizens, or U.S. citizen-owned corporations, or the vessels must be under the operational control of U.S. citizens. These vessels cannot be subject to requisition for title or use by any national government, other than the U.S. Government. Further, the foreign country in which the vessel is registered may not have a statutory restraint preventing the U.S. Government from requisitioning a U.S. citizen-owned or controlled vessel registered in that foreign country.

Eligible foreign-flag vessels that qualify for war risk interim binders are those that are: (1) Substantially engaged in the foreign commerce of the United States (considered to be so if they carry 30 percent of net cargo tonnage, on a semiannual basis, in the U.S. foreign

commerce); (2) product tankers up to 90,000 deadweight tons; (3) dry cargo vessels; (4) heavy lift vessels; (5) refrigerated vessels; (6) and other classes of vessels in short supply in the U.S.-flag fleet, with special capabilities.

If a vessel meets any of these criteria, the owner must affirm that it will: (1) Make the vessel available during a U.S. national emergency to serve the U.S. economy or cooperate with U.S. military authorities under section 902 of the Act (46 App. U.S.C. 1242); (2) maintain it in its eligible category; and (3) report its location to the U.S. Coast Guard.

Vessels owned or controlled by U.S. citizens and registered under the laws of a foreign government are subject to the laws of the country of registry. Such laws may prevent U.S. citizens or U.S. operators of a foreign-flag vessel from making that vessel available to the U.S. Government during periods of U.S. national emergency. MARAD's regulations require that applicants for war risk insurance on a foreign-flag vessel submit with their application a certified copy of the evidence of any official action or approval required by the government of the country of registry as a prerequisite to the execution of a VCC with the U.S. Government (46 CFR 308.3(d)(4)). The VCC between the U.S. Government (MARAD) and the vessel's U.S. citizen applicant makes that vessel available to the United States during any period in which vessels may be requisitioned under section 902 of the Act (46 App. U.S.C. 1242), i.e., whenever the President proclaims that there is a national emergency or that security or the national defense make it advisable.

This NPRM is issued in recognition of legislation enacted by the RMI in 1987 creating a ship registry. The RMI became a sovereign nation on October 21, 1988, with the signing of a Compact of Free Association (Pub. L. 99-239), which creates a special relationship between the United States and the Republic of the Marshall Islands. Under the terms of the Compact, the RMI has turned over its defenses to the United States in return for a pledge of foreign aid for a period of 15 years. The Compact is renewable at the end of this period.

Under the Compact of Free Association, The Marshalls are embarking upon an aggressive program of economic development. Provisions of the Compact assure the support and cooperation of many U.S. Federal Agencies in creating for the Marshall Islands those social services and economic services enjoyed by U.S. citizens. As part of this development program, in 1987, the Marshall Islands



passed a Maritime Act creating a ship registry. The Maritime Act has no statutory restraints preventing the U.S. Government from requisitioning a U.S. citizen-owned or controlled vessel registered in RMI.

Since the implementation of the Maritime Act of 1987, the Republic of the Marshall Islands has moved to adhere to Conventions of the International Maritime Organization (IMO) relating to maritime safety. To date, the following five treaties are in full force and effect for the Marshall Islands:

Convention on the International Regulations for Preventing Collisions at Sea, 1972, as amended, (COLREGS);  
International Convention for the Safety of Life at Sea (1974) (SOLAS);  
Protocol of 1978 amending International Convention for the Safety of Life at Sea;  
International Load Line Convention (1966); and  
International Convention for the Prevention of Pollution from Ships, 1973, as amended, (MARPOL).

The safety standards for the issuance of a permanent Certificate of Registration in the RMI are:

- (1) A valid certificate issued by any of the authorized Classification Societies (American Bureau of Shipping, Lloyd's Register, Bureau Veritas, Germanischer Lloyd, Nippon Kaiji Kyokai, Norske Veritas) with respect to Cargo or Passenger Safety Equipment; Cargo or Passenger Ship Safety Construction; International Loadline; International Tonnage Measurement; Prevention of Pollution from Ships; and such other certificates as may be applicable pursuant to the IMO convention;
- (2) A Certificate of Seaworthiness of the ship submitted to the Marshall Islands Maritime Authority (MIMA) by the respective authorized Classification Societies prior to the registration of the ship; and
- (3) A Ship Radio Station License issued by MIMA upon completion of satisfactory inspection by a MIMA marine inspector or surveyors of authorized Classification Societies.

The following safety inspections are required:

- (1) Prior to registration—A safety inspection shall be conducted to the satisfaction of a MIMA marine inspector;
- (2) Annual—A MIMA Marine inspector shall conduct an annual safety inspection and also shall conduct a safety inspection at the time when a safety inspection is being carried by the surveyors of authorized classification societies; and
- (3) Upon entering a U.S. port—Safety inspections by USCG may be

conducted upon ship's entering U.S. ports.

As a result of a review of the RMI Maritime Act, the U.S. Navy now regards U.S. citizen-owned or controlled vessels registered in the RMI as providing available cargo capacity to be relief upon to contribute to the cargo sealift capability support complementing U.S. strategic defense requirements. The U.S. Navy has requested that MARAD provide war risk insurance for certain RMI vessels, as appropriate. MARAD believes that RMI registry would be an attractive option to some U.S. citizen owners of eligible vessel types that are now under foreign registry.

Accordingly, MARAD is proposing to amend its regulations at 46 CFR part 308 to provide that certain vessels registered in the RMI be eligible for war risk insurance interim binders. Such vessels could serve the national economy and the national defense needs of the United States.

#### Analysis of Regulatory Impact

This rulemaking has been reviewed under Executive Order 12291, and it has been determined that this is not a major rule. It will not result in an annual effect on the economy of \$100 million or more. There will be no increase in production costs or prices for consumers, individual industries, Federal, State or local governments, agencies, or geographic regions. Furthermore, it will not adversely affect competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises in domestic or export markets. Accordingly, the economic impact has been found to be minimal.

This rulemaking does not involve any change in important Departmental policies, and is not considered significant under DOT regulatory policies and procedures (44 FR 11034; February 26, 1979). RMI law now allows entities registering their vessels in the RMI to qualify for U.S. Government issued war risk insurance binders, subject to enabling amendments to MARAD regulations. There are presently five vessels registered under the RMI-flag, none of which would be eligible for war risk insurance interim binders because none are owned by U.S. citizens or U.S. citizens owned corporations, or are under the operational control of U.S. citizens. The U.S. Navy has formally recommended to MARAD that eligibility for war risk insurance interim binders be extended to the RMI.

Since the rule principally affects the owners and operators of large commercial ships, the Maritime

Administrator certifies that it will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act of 1980 (5 U.S.C. 601-612).

This rulemaking does not significantly affect the environment. An environmental impact statement is not required under the National Environmental Policy Act of 1969. It has also been reviewed under Executive Order 12612, Federalism, and it has been determined that it does not have sufficient implications for federalism to warrant preparation of a Federalism Assessment.

This rule would amend the regulations at 46 CFR part 308, which contain information collection requirements in §§ 308.3 and 308.6. The information collection for vessels that are registered in the RMI will be identical to that which has been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). These new forms were approved for use in May 1989 (under OMB Control No. 2133-0011) and are now entitled: War Risk Insurance Application (Form MA-528); War Risk Insurance Binder (Form MA-942); Vessel Data (Form MA-828); and Underwriting Agency Agreement (Form MA-355).

#### List of Subjects in 46 CFR Part 308

Maritime carriers, War risks insurance.

Accordingly, 46 CFR part 308 is proposed to be amended as follows:

#### PART 308 [AMENDED]

1. The authority citation for part 308 continues to read as follows:

Authority: Secs. 204, 1202, 1203, 1209, Merchant Marine Act, 1936, as amended (46 App. U.S.C. 1114, 1282, 1283, 1289); 49 U.S.C. 1.66.

#### § 308.2 [Amended]

2. Section 308.2(a) is amended by inserting between the word "Bahamian," and the word "or," the words "Republic of the Marshall Islands."

(Catalog of Federal Domestic Assistance Program No. 20.803 War Risk Insurance)

By Order of the Maritime Administrator.

Dated: November 16, 1989.

James E. Saari,

Secretary.

[FR Doc. 89-27384 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-81-M



# FEDERAL COMMUNICATIONS COMMISSION

## 47 CFR Part 73

[MM Docket No. 89-491, RM-6945]

### Radio Broadcasting Services; Brantley, AL

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

**SUMMARY:** This document requests comments on a petition filed on behalf of Crenshaw Broadcasting Company, seeking the allotment of Channel 262A to Brantley, Alabama, as that community's second local FM broadcast service. Reference coordinates for this proposal are 31-36-00 and 86-17-44.

**DATES:** Comments must be filed on or before January 5, 1990, and reply comments on or before January 22, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC, 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, as follows: Crenshaw Broadcasting Company, Attn: Steven D. Lester, 627 Edgewood Acres, Luverne, AL 36049.

**FOR FURTHER INFORMATION CONTACT:** Nancy Joyner, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-491, adopted October 19, 1989, and released November 14, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contact.

For information regarding proper filing procedures for comments, See 47 CFR 1.415 and 1.420.

## List of Subjects in 47 CFR Part 73

### Radio broadcasting.

Federal Communications Commission.

Karl Kensinger,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 89-27371 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

## 47 CFR Part 73

[MM Docket No. 89-498, RM-6916]

### Radio Broadcasting Services; Bethany Beach, DE

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

**SUMMARY:** This document requests comments on a petition by Alfred R. Campagnone, proposing the allotment of Channel 278A to Bethany Beach, Delaware, as that community's second FM service. The coordinates for this allotment are North Latitude 38-32-22 and West Longitude 75-03-20.

**DATES:** Comments must be filed on or before January 8, 1990, and reply comments on or before January 23, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioners, or their counsel or consultant, as follows: Alfred R. Campagnone, G.M., c/o WNRK (AM) Radio Station, 496 Walther Road, Newark, Delaware 19713.

**FOR FURTHER INFORMATION CONTACT:** Nancy J. Walls, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-498, adopted October 24, 1989, and released November 15, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex*

*parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contact.

For information regarding proper filing procedures for comments, See 47 CFR 1.415 and 1.420.

## List of Subjects in 47 CFR Part 73

### Radio broadcasting.

Federal Communications Commission.

Karl A. Kensinger,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 89-27363 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

## 47 CFR Part 73

[MM Docket No. 89-497, RM-6877]

### Radio Broadcasting Services; Apalachicola, FL

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

**SUMMARY:** This document requests comments on a petition by Richard L. Plessinger, Sr., proposing the substitution of Channel 293C1 for Channel 265A at Apalachicola, Florida, and the modification of his license for Station WOYS (FM) to specify operation on the higher powered channel. Channel 293C1 can be allotted to Apalachicola in compliance with the Commission's minimum distance separation requirements with a site restriction of 9.7 kilometers (6.1 miles) east at WOYS's current transmitter site. The coordinates for this allotment are North Latitude 29-43-57 and West Longitude 84-53-24.

**DATES:** Comments must be filed on or before January 8, 1990, and reply comments on or before January 23, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioners, or their counsel or consultant, as follows: Kenneth E. Hardman, 1200 29th Street, NW., Washington, DC 20007, (Attorney for petitioner).

**FOR FURTHER INFORMATION CONTACT:** Nancy J. Walls, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-497, adopted October 24, 1989, and released November 15, 1989. The full text of this Commission decision is



available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contact.

For information regarding proper filing procedures for comments, See 47 CFR 1.415 and 1.420.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

Karl A. Kensinger,  
Chief, Allocations Branch, Policy and Rules  
Division, Mass Media Bureau.

[FR Doc. 89-27367 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

#### 47 CFR Part 73

[MM Docket No. 89-485, RM-6942]

#### Radio Broadcasting Services; Creston, IA

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Commission requests comments on a petition by G.O. Radio, Ltd. seeking the substitution of Channel 267C3 for Channel 269A at Creston, Iowa, and the modification of its license for Station KTR-FM accordingly. Channel 267C3 can be allotted to Creston in compliance with the Commission's minimum distance separation requirements and can be used at Station KTR-FM's present transmitter site. The coordinates for this allotment are North Latitude 41-05-41 and West Longitude 94-22-30. In accordance with § 1.420(g) of the Commission's Rules, we will not accept competing expressions of interest in use of the channel at Creston or require the petitioner to demonstrate the availability of an additional equivalent class channel for use by such interested parties.

**DATES:** Comments must be filed on or before January 8, 1990, and reply comments on or before January 23, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Glenn R. Olson, President, G.O. Radio, Ltd., P.O. Box 550, Webster City, Iowa 50595 (Petitioner).

**FOR FURTHER INFORMATION CONTACT:** Leslie K. Shapiro, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-485, adopted October 19, 1989, and released November 15, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

Karl A. Kensinger,  
Chief, Allocations Branch, Policy and Rules  
Division, Mass Media Bureau.

[FR Doc. 89-27369 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

#### 47 CFR Part 73

[MM Docket No. 89-492, RM-6900]

#### Radio Broadcasting Services; Detroit Lakes, MN

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** This document requests comments on a petition filed by Robert D. Spilman, proposing the allotment of FM Channel 272C2 to Detroit Lakes, Minnesota. There is a site restriction 3.6 kilometers north of the community. Canadian concurrence will be sought for this allotment at coordinates 46-50-43 and 95-50-05.

**DATES:** Comments must be filed on or before January 5, 1990, and reply comments on or before January 22, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Eugene T. Smith, 715 G Street, SE., Washington, DC 20003, (Counsel for the petitioner).

**FOR FURTHER INFORMATION CONTACT:** Kathleen Scheuerle, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-492, adopted October 23, 1989, and released November 14, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

Karl Kensinger,  
Chief, Allocations Branch, Policy and Rules  
Division, Mass Media Bureau.

[FR Doc. 89-27365 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M



**47 CFR Part 73**

[MM Docket No. 89-499, RM-6928]

**Radio Broadcasting Services; Saint Robert and Sparta, MO****AGENCY:** Federal Communications Commission.**ACTION:** Proposed rule.

**SUMMARY:** This document requests comments on a petition filed by James L. Gardner, proposing the substitution of FM Channel 243C2 for Channel 243A at Sparta, Missouri. Petitioner also requests modification of his license for Station KLTQ to specify operation on Channel 243C2. The coordinates for Channel 243C2 are 36-56-23 and 93-17-15. To accommodate the upgrade at Sparta, it is necessary to substitute Channel 255A for Channel 243A (vacant) at Saint Robert, Missouri. One application is on file for the channel at Saint Robert. The coordinates for Channel 255A are 37-49-41 and 92-10-39.

**DATES:** Comments must be filed on or before January 8, 1990, and reply comments on or before January 23, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Colby M. May, May & Dunne, Chartered, 1000 Thomas Jefferson Street, NW., Suite 520, Washington, DC 20007.

**FOR FURTHER INFORMATION CONTACT:** Kathleen Scheuerle, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-499, adopted October 24, 1989, and released November 15, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, (202) 857-3800, 2100 M Street NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments.

See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts. For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

**List of Subjects in 47 CFR Part 73**

Radio broadcasting.

Federal Communications Commission.

Karl Kensinger,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 89-27366 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

**47 CFR Part 73**

[MM Docket No. 89-484, RM-6972]

**Radio Broadcasting Services; Edinboro, PA****AGENCY:** Federal Communications Commission.**ACTION:** Proposed rule.

**SUMMARY:** The Commission requests comments on a petition by Wincapp Broadcasting, Inc. seeking the substitution of Channel 250B1 for Channel 250A at Edinboro, Pennsylvania, and the modification of its license for Station WMYJ accordingly. Channel 250B1 can be allotted to Edinboro in compliance with the Commission's minimum distance separation requirements with the exception of a short-spacing to Station CHTZ-FM, Channel 249B, St. Catharines, Ontario, Canada, and can be used at the station's present transmitter site. The coordinates for this allotment are North Latitude 41-57-59 and West Longitude 80-06-40. Canadian concurrence as a specially negotiated allotment is required since Edinboro is located within 320 kilometers of the U.S.-Canadian border.

**DATES:** Comments must be filed on or before January 5, 1990, and reply comments on or before January 22, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Sidney White Rhyne, Esq., Mark N. Lipp, Esq., Mullin, Rhyne, Emmons & Topel, P.C., 1000 Connecticut Avenue, NW., Suite 500, Washington, DC 20036 (Counsel to petitioner).

**FOR FURTHER INFORMATION CONTACT:** Leslie K. Shapiro, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-484, adopted October 19, 1989, and

released November 14, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

**List of Subjects in 47 CFR Part 73:**

Radio broadcasting.

Federal Communications Commission.

Karl A. Kensinger,

Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 89-27370 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

**47 CFR Part 73**

[MM Docket No. 89-495, RM-6940]

**Radio Broadcasting Services; Culebra, PR****AGENCY:** Federal Communications Commission.**ACTION:** Proposed rule.

**SUMMARY:** The Commission requests comments on a petition by Maria del Carmen Aviles seeking the allotment of Channel 293A to Culebra, Puerto Rico, as its first local FM service. Channel 293A can be allotted to Culebra in compliance with the Commission's minimum distance separation requirements without the imposition of a site restriction. The coordinates for this allotment are North Latitude 18-18-18 and West Longitude 65-18-06. Aviles is requested to furnish information to demonstrate that Culebra qualifies as a community for allotment purposes.

**DATES:** Comments must be filed on or before January 8, 1990, and reply comments on or before January 23, 1990.



**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Maria del Carmen Aviles, Apt. 631, Fajardo, Puerto Rico 00648 (Petitioner).

**FOR FURTHER INFORMATION CONTACT:** Leslie K. Shapiro, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-495, adopted October 24, 1989, and released November 15, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

Karl A. Kensinger,  
Chief, Allocations Branch, Policy and Rules  
Division, Mass Media Bureau.

[FR Doc. 89-27368 Filed 11-22-89; 8:45 am]

BILLING CODE 6712-012-M

#### 47 CFR Part 73

[MM Docket No. 89-496, RM-6971]

#### Radio Broadcasting Services; Georgetown and Myrtle Beach, SC

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Commission requests comments on a petition by Coastline Communications of Carolina, Inc. seeking the Reallotment of Channel 249C2 from Georgetown, South Carolina, to Myrtle Beach, South Carolina, and the modification of its license for Station WBPR accordingly. Channel 249C2 can be allotted to Myrtle Beach in compliance with the Commission's minimum distance separation requirements and can be used at Station WBPR's present transmitter site. The coordinates for this allotment are North Latitude 33-35-27 and West Longitude 79-02-53. In accordance with Section 1.420(i) of the Commission's Rules, we will not accept competing expressions of interest in use of the channel at Myrtle Beach.

**DATES:** Comments must be filed on or before January 8, 1990 and reply comments on or before January 23, 1990.

**ADDRESSES:** Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Christine D. McLaughlin, Esq., Fletcher, Heald & Hildreth, 1225

Connecticut Avenue, NW., Suite 400, Washington, DC 20036 (Counsel to petitioner).

**FOR FURTHER INFORMATION CONTACT:** Leslie K. Shapiro, Mass Media Bureau, (202) 634-6530.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 89-496, adopted October 24, 1989, and released November 15, 1989. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230) 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, (202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

#### List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

Karl A. Kensinger,  
Chief, Allocations Branch, Policy and Rules  
Division, Mass Media Bureau.

[FR Doc. 89-27364 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M



# Notices

Federal Register

Vol. 54, No. 224

Wednesday, November 22, 1989

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF AGRICULTURE

### Small Business Competitiveness Demonstration Program

**AGENCY:** Office of the Secretary, Assistant Secretary for Administration, USDA.

**ACTION:** Notice and request for information.

**SUMMARY:** Section 712(c) of the Business Opportunity Development Reform Act of 1988, Public Law 100-656 (the Act), as amended, requires ten participating agencies, including USDA, to "implement a program to expand small business participation in the agency's acquisition of selected products and services in 10 industry categories which have historically demonstrated low rates of small business participation." In accordance with the final policy directive issued by the Small Business Administration (SBA) and the Office of Federal Procurement Policy (OFPP) implementing title VII of the Act, USDA hereby announces and solicits comments on its program for expansion of small business participation in the 10 industry categories selected to be targeted. USDA also solicits information from firms wishing to participate in the program.

**DATE:** Comments are due in writing on or before December 22, 1989.

**ADDRESS:** Comments should be addressed to: Gerardo Franco, U.S. Department of Agriculture, Office of Advocacy and Enterprise, Small and Disadvantaged Business Utilization (SDBU), Room 124-W, Administration Building, Washington, DC 20250.

**FOR FURTHER INFORMATION CONTACT:** Gerardo Franco at (202) 447-7117.

#### SUPPLEMENTARY INFORMATION:

##### Background

Title VII of the Business Opportunity Development Reform Act of 1988, Public Law 100-656, as amended, established a

pilot program to test the competitiveness of small business in federal contracting known as the Small Business Competitiveness Demonstration Program (the Program). In summary, the Program is designed to test the ability of small businesses to compete in four designated industry groups (DIGS), without the assistance of set-asides and to measure the extent to which awards are made to a new category of small businesses known as emerging small businesses (ESB's). The Program also is designed to demonstrate whether small business involvement can be increased in 10 industry categories traditionally lacking small business participation.

Ten agencies have been identified to participate in the program, which is to be conducted over a period of four years, ending on December 31, 1992.

The Program is to be conducted under the authority of section 15 of the Office of Federal Procurement Policy (OFPP) Act. The Small Business Administration (SBA) is to act as the executive agent for OFPP in conducting the test.

The policies and procedures for implementing the test are set forth in the joint SBA/OFPP final policy directive that was published in the *Federal Register* on September 12, 1989 (54 FR 37741).

### The USDA Competitiveness Demonstration Program

#### I. Designated Industry Groups (DIGS)

The Designated Industry Groups as defined in the Act are: Construction (excluding dredging), refuse systems and related services (including portable sanitation services), architectural and engineering services (including surveying and mapping) and non-nuclear ship repair services.

Small business set-aside procedures are not to be used to satisfy procurement requirements over \$25,000 in a designated industry group, unless the USDA level of participation falls below a 40 percent level, as determined by quarterly reviews of procurement data. However, these requirements will still be considered for procurement under the 8(a) contracting authority. Quarterly reviews and reporting will be conducted by the USDA Office of Advocacy and Enterprise (OAE) Small and Disadvantaged Business Utilization (SDBU) Office, in conjunction with the Office of Operations (OO). If the USDA level of participation falls below 40

percent in any designated industry group, set-aside procedures may be instituted at the discretion of OAE/SDBU. USDA agencies will be notified of any changes to Departmental solicitation practices applicable to the quarter following completion of the review indicating the need for such changes.

Procurement requirements of \$25,000 or less within the DIGS are to be reserved for ESB's, provided that a reasonable expectation exists that competitive responses will be received from two or more responsible concerns. If no such expectation exists, requirements are to be procured in accordance with the set-aside provisions of Federal Acquisition Regulation (FAR) subpart 13.105, subpart 19.5 or 19.8.

USDA agencies shall undertake all practical efforts to identify potential ESB's for solicitation and inclusion in their source lists. Size information may be obtained from previous responses to solicitations; prescribed clauses concerning small business size; from outreach efforts conducted by the contracting activity or from any other alternative means including SBA, SDBU, Dun and Bradstreet or similar business profile lists.

#### II. Targeted Industry Categories (TICS)

The policy directive provides that the TICS for enhanced small business participation are to be determined by each participating agency, in consultation with SBA. Agencies are required to develop and implement a program consistent with its procurement needs and the requirements of the law. The products and services selected shall be drawn from industry categories that:

- Are the recipients of substantial purchases by the federal government;
- Have less than 10 percent of such annual purchases made from small businesses; and
- Have significant amounts of small business productive capacity that has not been utilized by the government.

##### a. Selection of the USDA TICS

In consultation with SBA, USDA has selected 10 Federal Procurement Data System (FPDS) codes suitable for inclusion in the program. The selected codes show less than 10 percent average rate of small business participation,



substantial agency procurements and potential small business capacity.

The extent of participation and of expenditures with small business was determined from historical procurement data for the previous three fiscal years (FY 86-88) and feedback from procuring

activities on projected requirements. The determination as to the availability of small businesses was based on an analysis of previous small business activity in the USDA market place, consultation with SBA and Procurement Automated Source System (PASS)

research by Standard Industrial Classification (SIC) and by Federal Procurement Data System codes.

The 10 Industry Categories selected for the program, as defined by FPDS codes and potential SIC codes that may be affected are:

FPDS code	Description	Four year goal (%)	Potential SIC code(s)	Applicable size standard
B544	Technology Studies (Old R544).....	20	8731	500 EMP
			8999	\$ 3.5 M
J070	Maintenance and Repair/ADP Equipment.....	10	7378	\$12.5 M
N070	Installation of ADP Equipment.....	10	7373	\$ 7.0 M
			7379	\$12.5 M
T099	Other Photo/Mapping/Printing Services.....	20	2741	500 EMP
			2759	500 EMP
			7336	\$ 3.5 M
			7389	\$ 3.5 M
U006	Vocational/Technical Training.....	10	8249	\$ 3.5 M
			8299	\$12.5 M
			8331	\$ 3.5 M
W036	Leasing Special Industrial Machinery.....	10	3555	500 EMP
			3823	500 EMP
			7359	\$ 3.5 M
6810	Chemical Products.....	10	2813	1,000 EMP
			2819	1,000 EMP
			2836	500 EMP
			2869	1,000 EMP
			2879	500 EMP
			2891	500 EMP
7021	ADP Central Processing Units.....	9	3571	1,000 EMP
			5734	\$ 4.5 M
8105	Bags and Sacks.....	10	2299	500 EMP
			2673	500 EMP
			2674	500 EMP
8405	Outwear—Men's.....	11	2329	500 EMP
			2385	500 EMP

Notes: Dollar Values are in millions. EMP denotes number of employees.

For more information on size standards and definitions consult FAR Subpart 19.1 Size Standards.

#### b. Policy and Implementation Initiatives

The USDA will aggressively promote increased small business participation in the targeted categories by encouraging joint efforts and teaming arrangements among capable small businesses, establishing realistic long term goals and aggressively monitoring achievements.

USDA agencies shall maximize their efforts in the selected categories and provide assistance to small businesses through increased use of set-asides and outreach activities. All TICs procurement requirements, regardless of dollar value, shall be considered for small business set-asides or 8(a) contracting pursuant to far 19.501 and 19.803, respectively. Contracting activities are required to notify the OAE/SDBU office if a requirement is not set-aside. A copy of the solicitation is to be sent along with the notification.

The SBA PASS will not be the primary source for retrieving information on available firms. In addition, the SDBU office will maintain a data base of firms capable of performing requirements in the selected categories and will share the information with USDA agencies upon request.

Small businesses interested in participating in the Program are urged to register with PASS and to contact the SDBU office to indicate interest in the Program. When contacting SDBU please provide a brief capability statement and indicate the specific TIC, small business size and whether the firm is interested in participating in joint ventures.

Dated: November 15, 1989.

John J. Franke, Jr.,

Assistant Secretary for Administration.

[FR Doc. 89-27385 Filed 11-21-89; 8:45 am]

BILLING CODE 3410-94-M

#### Forest Service

#### DEPARTMENT OF THE INTERIOR

#### National Park Service

#### Cooperative Management of Greater Yellowstone Area, Montana, Idaho, and Wyoming

**AGENCY:** Forest Service, USDA and National Park Service, Interior.

**ACTION:** Notice: Plans to Develop an Interagency Framework for the cooperative management of the Greater Yellowstone Area.

**SUMMARY:** The Forest Service and the National Park Service give notice of plans to develop a coordination process that will result in a management document called "The Vision—A Management Framework for the Greater Yellowstone Area." The Greater Yellowstone Area is comprised of 11.7 million contiguous acres of federally owned and managed lands including



and surrounding Yellowstone and Grand Teton National Parks. National Forests wholly or partially contained in the Greater Yellowstone Area are the Targhee, Bridger-Teton, Shoshone, Custer, Gallatin, and Beaverhead National Forests. These Forests are administered from three different Forest Service Regional Offices: the Northern Region located in Missoula, Montana; the Rocky Mountain Region in Denver, Colorado; and the Intermountain Region in Ogden, Utah. Both Grand Teton and Yellowstone National Parks are administered through the Rocky Mountain Region of the National Park Service located in Denver, Colorado. The Parks and/or Forests are located in the states of Montana, Idaho, and Wyoming.

**DATE:** To ensure consideration, comments should be mailed to the address below by February 15, 1990.

**ADDRESS:** Send written comments to Greater Yellowstone Coordinating Committee, Box 2556, Billings, MT 59103.

**FOR FURTHER INFORMATION CONTACT:**

Greater Yellowstone Coordinating Committee, Jack Troyer, Sandra Key, and Betty Schmitt, above address, or telephone (406) 657-6361 or FTS 585-6361.

**SUPPLEMENTARY INFORMATION:** The development of the Vision Document continues the coordination process between the Forest Service and National Park Service that began in the 1960's when Forest and Park Managers in the area formed The Greater Yellowstone Coordinating Committee. It is at the initiative of the Committee that this process is being undertaken and that its forerunner, "The Greater Yellowstone Area—An Aggregation of National Park and Forest Plans" (The Aggregation), was published in 1987. The Aggregation combines information from management plans for the National Forests and National Parks within the Greater Yellowstone Area and displays the condition and extent of resources and management activities within the Greater Yellowstone Area and projects the future condition of the region as management plans are implemented in the next 10 to 15 years.

The Aggregation will also serve as the information base for the coordinating process being announced in this Federal Register notice. There are presently two steps envisioned to this process. First, the agencies will develop a Vision Document that will contain goals that describe desired future conditions for the Greater Yellowstone Area and how they will be achieved (Coordinating Criteria). Implicit in these goals is the potential need to adjust current management practices so they are

compatible with the goals contained in the Vision Document. This adjustment will be done through the second effort, comparison of National Park Service and Forest Service planning documents which is scheduled to begin when the Vision Document is completed in 1990.

The Vision will describe as goals the desired future conditions of lands and resources found in the Greater Yellowstone Area. The Coordinating Criteria will describe how each goal in the Vision will be reached or maintained. As appropriate, these criteria will be specific, measurable, and geographically identifiable. The Vision will also contain criteria for analyzing and monitoring resource conditions and the impact management actions will have on Park values and the values of the entire Greater Yellowstone Area. The missions of both the National Park Service and Forest Service will be preserved throughout the process. The goals and coordinating criteria will, however, provide the future emphasis for planning directions. The Vision Document and the coordinating criteria may be used as the basis for the development of uniform management prescriptions. It would be done as part of this process or as a separate process or document.

The second effort, comparison of agency planning documents such as the Regional Guides, Park Management Plans, and Forest Management Plans with the Vision Document, will be accomplished using existing planning processes and regulations while the Vision Document will be developed using a variety of public participation techniques.

The Vision will serve as an "umbrella" document which will provide a framework within which the management of the Greater Yellowstone Area can be coordinated. The document itself will contain four sections, one of which will be developed through intensive and extensive contact with the publics throughout the states of Montana, Wyoming and Idaho. It will also include contacts with publics and individuals on a national and international level.

The process of gathering and formatting the goals portion of the Vision Document will begin at once. Other sources of information that will be used to develop this document include, but are not limited to: state governments, other Federal entities, Forest and Park managers and staff, elected officials and national and international groups and agencies.

The Vision Document may contain goal statements and coordinating

criteria relative to the following topics:

Wildlife management including threatened, endangered and game and non-game species; wildlife migration corridors; and biological diversity

Fire management, forest health, visual quality

Recreational use, cultural resources, and public use

Economic future of commodity users and the business community and the balance of multiple uses

Utility corridors, roadless areas, mineral leasing and geothermal and groundwater recharge areas.

Additional topics will likely be identified through the public participation process and through contacts with the other entities previously mentioned. The Vision Document will deal with issues that require management on a regional level or that transcend the existing boundaries.

It will not:

1. Serve as a Regional Plan,
2. Make specific land allocation decisions,
3. Preempt the legal decision making role of individual land managers, or
4. Address issues that are limited to the management of individual Forests or Parks.

Agencies, organizations, and other identifiable potentially affected interests and individuals will be invited by letter, newsletter, media notice, and publication of this notice to participate in identification of issues and development of goals for the Vision Document. A variety of public participation practices will be used. These include open houses, speaking engagements, seminars, conferences, newsletters, mailings, media releases, feature media events and personal contacts.

After the public has had an opportunity to participate, the information will be synthesized into a draft Vision Document with draft goals and coordinating criteria. Upon completion of the draft, the public will once again be asked to comment using a more structured public participation process. Where differences exist, the Coordinating Committee will continue to work with interested parties to resolve them. Where resolution is not possible, the agencies will decide whether to include the goal and if so, how it will be written. Following this process, the Vision Document will be put in final form and will be distributed to the public.

Upon completion of the Vision Document, the second step of this process, comparison of Regional Guides and Forest and Park Plans to the Vision Document will begin. If subsequent



amendments or revisions of planning documents are indicated, they will be handled as a separate effort by each agency in compliance with applicable statutes and regulations.

The timeframe for development of the Vision Document is not extensive and the public should be cognizant of that as they plan their participation.

Specifically, the schedule is as follows:

1. Brief groups, agencies, and elected officials and invite their participation: June—October, 1989.

2. Draft goals for Vision Document: October—March, 1989–1990.

3. Publish draft Vision for public comment: Spring 1990.

4. Prepare the revised final Vision incorporating public comment: Summer 1990.

The National Park Service Manager for this process is Rocky Mountain Regional Director, Lorraine Mintzmyer. The three Regions of the Forest Service are represented by their respective Regional Foresters: Gary Cargill for Region 2, John Mumma for Region 1, and Stan Tixier for Region 4.

Dated: November 17, 1989.

For the Forest Service.

Glen E. Hetzel,

Acting Deputy Regional Forester.

Dated: November 16, 1989.

For the National Park Service.

Jack Neckels,

Acting Regional Director.

[FR Doc. 89-27413 Filed 11-21-89; 8:45 am]

BILLING CODE 3410-11-M

## DEPARTMENT OF COMMERCE

### Agency Information Collection Under Review by Office of Management and Budget (OMB)

DOC has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: National Oceanic and Atmospheric Administration

Title: Report of Observations/Samples

Collected by Oceanographic Programs

Form Number: NOAA Form 24-23;

OMB-0648-0033

Type of Request: Request for extension of OMB approval of a currently cleared collection

Burden: 15 respondents; 75 reporting hours; average hours per response—.5 hours

Needs and uses: This form is used to collect information on oceanographic research that has been conducted. The information is made part of an international inventory that helps

eliminate duplicate research efforts and make data more available to scientists

Affected public: State or local governments, Federal agencies or employees, non-profit institutions

Frequency: On occasion

Respondent's obligation: Required to obtain or retain a benefit

OMB Desk Officer: Russell Scarato 395-7430

Copies of the above information collection proposal can be obtained by calling or writing DOC Clearance Officer, Edward Michals, (202) 377-3271, Department of Commerce, Room 6622, 14th and Constitution Avenue, NW., Washington, DC 20230. Written comments and recommendations for the proposed information collection should be sent to Russell Scarato, OMB Desk Officer, room 3208, New Executive Office Building, Washington, DC 20503.

Dated: November 15, 1989.

Edward Michals,

Departmental Clearance Officer, Office of Management and Organization.

[FR Doc. 89-27379 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-CW-M

### Agency Information Collection Under Review by Office of Management and Budget (OMB)

DOC has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: National Oceanic and Atmospheric Administration

Title: Data Documentation Form

Form Number: NOAA Form 24-13;

OMB-0648-0024

Type of Request: Request for extension of OMB approval of a currently cleared collection

Burden: 100 respondents; 100 reporting hours; average hours per response—.5 hours

Needs and uses: Organizations sending oceanographic data in digital form to the National Oceanographic Data Center are requested to document some scientific and ADP information about the data on the NOAA Form 24-13. The information helps make the data accessible and meaningful

Affected public: State or local governments, Federal agencies or employees, non-profit institutions

Frequency: On occasion

Respondent's obligation: Voluntary

OMB Desk Officer: Russell Scarato 395-7430

Copies of the above information collection proposal can be obtained by

calling or writing DOC Clearance Officer, Edward Michals, (202) 377-3271, Department of Commerce, Room 6622, 14th and Constitution Avenue, NW., Washington, DC 20230. Written comments and recommendations for the proposed information collection should be sent to Russell Scarato, OMB Desk Officer, room 3208, New Executive Office Building, Washington, DC 20503.

Dated: November 15, 1989.

Edward Michals,

Departmental Clearance Officer, Office of Management and Organization.

[FR Doc. 89-27380 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-CW-M

### Agency Information Collection Under Review by the Office of Management and Budget (OMB)

DOC has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: National Oceanic and Atmospheric Administration

Title: Survey of Intent and Capacity to

Harvest and Process Fish and

Shellfish (Northwest Region)

Form number: None

Type of request: New collection

Burden: 60 respondents; 9 reporting hours; average time per response—5 minutes

Needs and uses: U.S. fish processors, joint venture companies, and fishermen's trade associations involved in the groundfish fishery in the Northwest Region of the U.S. are required to provide the tonnage of their actual and expected use of relevant species of groundfish. The information is used to establish groundfish quotas

Affected public: Individuals or households, business or other for-profit, and small businesses or organizations

Frequency: Semi-annually

Respondent's obligation: Mandatory

OMB Desk Officer: Russell Scarato, 395-7340

Copies of the above information collection proposal can be obtained by calling or writing DOC Clearance Officer, Edward Michals, (202) 377-3271, Department of Commerce, Room 6622, 14th and Constitution Avenue, NW., Washington, DC 20230. Written comments and recommendations for the proposed information collection should be sent to Russell Scarato, OMB Desk Officer, Room 3208, New Executive Office Building, Washington, DC 20503.



Dated: November 15, 1989.

Edward Michals,

*Departmental Clearance Officer, Office of Management and Organization.*

[FR Doc. 89-27381 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-CW-M

## Foreign-Trade Zones Board

[Docket No. 28-89]

### Proposed Foreign-Trade Zone, Grays Harbor County, Washington and Subzone for Lamb-Grays Harbor Company (Automatic Guided Vehicles); Application and Public Hearing

An application has been submitted to the Foreign-Trade Zones Board (the Board) by the Port of Grays Harbor (PGH), requesting authority to establish a general-purpose foreign-trade zone in Grays Harbor County, Washington, adjacent to the Aberdeen-Hoquiam Customs port of entry, and for subzone status at the manufacturing plant of Lamb-Grays Harbor Company (Lamb) in Hoquiam. It was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a-81u), and the regulations of the Board (15 CFR part 400), and was formally filed on November 13, 1989. The applicant is authorized to make this proposal under the Revised Code of Washington, Section 24.46.020.

The proposed general-purpose zone will involve five sites on Grays Harbor: Site 1 (292 acres), PGH Port Industrial Area, including marine terminal complex, Aberdeen and Hoquiam; Site 2 (45 acres), PGH Industrial Development District No. 1, harbor navigation channel, Hoquiam; Site 3 (132 acres), Bowerman Airfield and adjacent industrial park, Grays Harbor County; Site 4 (117 acres), PGH industrial parcel on State Highway 105, Westport; and Site 5 (2.8 acres), main dock, PGH Westport Marina, Westport.

The general purpose zone part of the application contains evidence of the need for zone services in the Grays Harbor County area. Several firms have expressed an interest in using zone procedures for warehousing/distribution of products including autos, steel, cement, and a variety of bulk metals and ores. No specific manufacturing approvals are being sought for the general-purpose zone sites at this time. Such requests would be made to the Board on a case-by-case basis.

The proposal also requests authority for subzone status for a portion (14

acres) of the manufacturing facility of Lamb-Grays Harbor Company (Lamb), located at Blain and Firman Streets in Hoquiam. The facility is used to produce automated guided vehicles (AGV's) used by paper manufacturing and publishing industries for moving large rolls of paper. Foreign-sourced components account for approximately 60 percent of the value of the finished AGV, and include electronic automatic data processing units, sensors, transmitters, controllers, steering drives, armatures, tachometers, and antennae.

Zone procedures would exempt Lamb from Customs duty payments on the foreign components used in AGV's that are exported. On domestic sales the company would be able to choose to pay duties at the rate applicable to the finished AGV's (duty-free) rather than at the rates on the components (3.7 to 8.0 percent). The applicant indicates that zone savings will help improve the company's international competitiveness.

In accordance with the Board's regulations, an examiners committee has been appointed to investigate the application and report to the Board. The committee consists of: John J. Da Ponte, Jr. (chairman), Director, Foreign-Trade Zones Staff, U.S. Department of Commerce, Washington, DC 20230; Daniel C. Holland, District Director, U.S. Customs Service, Pacific Region, 909 First Avenue, room 2039, Seattle, Washington 98174; and Col. Philip L. Hall, District Engineer, U.S. Army Engineer District Seattle, P.O. Box C-3755, Seattle, Washington 98124-2255.

As part of its investigation, the examiners committee will hold a public hearing on December 14, 1989, beginning at 9 a.m., in the Port of Grays Harbor Commission Meeting Room, 111 South Wooding Street, Aberdeen, Washington.

Interested parties are invited to present their views at the hearing. Persons wishing to testify should notify the Board's Executive Secretary in writing at the address below or by phone (202/377-2862) by December 7, 1989. Instead of an oral presentation, written statements may be submitted in accordance with the Board's regulations to the examiners committee, care of the Executive Secretary, at any time from the date of this notice through January 16, 1990.

A copy of the application and accompanying exhibits will be available during this time for public inspection at each of the following locations:

Port Director's Office, 421 West State Street, P.O. Box 268, Aberdeen, Washington 98520.

Office of the Executive Secretary,  
Foreign-Trade Zones Board, U.S.  
Department of Commerce, 14th and  
Pennsylvania Avenue, NW., Room  
2835, Washington, DC 20230.

Dated: November 15, 1989.

Dennis Puccinelli,

*Acting Executive Secretary.*

[FR Doc. 89-27383 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-05-M

## National Oceanic and Atmospheric Administration, Caribbean Fishery Management Council; Public Meetings

**AGENCY:** National Marine Fisheries Service, NOAA, Commerce.

The Caribbean Fishery Management Council and the Council's Administrative Committee will meet December 20-22, 1989, at the Hotel Pierre (De Diego Avenue), Santurce, Puerto Rico.

The Council will hold its 68th regular public meeting to discuss, among other topics, a final decision on management measures proposed in the first amendment to the Shallow-water Reef Fish Fishery Management Plan. The approximate schedule for the Council's meeting is December 21 from 9 a.m. to 5 p.m., and December 22 from 9 a.m. to noon.

The Caribbean Council's Administrative Committee will meet December 20 from approximately 2 p.m. to 5 p.m., to discuss administrative matters related to Council operations.

Fishermen and other interested persons are invited to attend. Members of the public will be allowed to submit oral or written statements regarding the agenda items. The public meetings will be conducted in English; however, simultaneous English/Spanish translations of the proceedings also will be conducted. For more information contact Miguel A. Rolon, Executive Director, Caribbean Fishery Management Council, Banco de Ponce Building, Suite 1108, Hato Rey, Puerto Rico 00918-2577; telephone: (809) 766-5926.

David S. Crestin,

*Deputy Director, Office of Fisheries Conservation and Management, National Marine Fisheries Service.*

[FR Doc. 89-27359 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-22-M



# COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS

## Adjustment of Import Limits for Certain Cotton, Wool, Man-Made Fiber, Silk Blend and Other Vegetable Fiber Textiles and Textile Products Produced or Manufactured in Macau

November 16, 1989.

**AGENCY:** Committee for the Implementation of Textile Agreements (CITA).

**ACTION:** Issuing a directive to the Commissioner of Customs adjusting limits.

**EFFECTIVE DATE:** November 16, 1989.

**FOR FURTHER INFORMATION CONTACT:** Diana Solkoff, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 377-4212. For information on the quota status of these limits, refer to the Quota Status Reports posted on the bulletin boards of each Customs port or call (202) 343-6495. For information on embargoes and quota re-openings, call (202) 377-3715.

### SUPPLEMENTARY INFORMATION:

Authority: Executive Order 11651 of March 3, 1972, as amended; Sec. 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854).

The current limits for certain categories are being adjusted, variously, for swing and carryforward.

A description of the textile and apparel categories in terms of HTS numbers is available in the *Correlation: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States* (see *Federal Register* notice 53 FR 44937, published on November 7, 1988). Also see 53 FR 51297, published on December 21, 1988.

The letter to the Commissioner of Customs and the actions taken pursuant to it are not designed to implement all of the provisions of the bilateral agreement, but are designed to assist only in the implementation of certain of its provisions.

William J. Dulka,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

Committee for the Implementation of Textile Agreements

November 16, 1989.

Commissioner of Customs,  
Department of the Treasury, Washington, DC 20229.

Dear Commissioner: This directive amends, but does not cancel, the directive of December 16, 1988 issued to you by the Chairman, Committee for the Implementation of Textile Agreements. That directive concerns imports into the United States of

certain cotton, wool, man-made fiber, silk blend and other vegetable fiber textiles and textile products, produced or manufactured in Macau and exported during the twelve-month period which began on January 1, 1989 and extends through December 31, 1989.

Effective on November 16, 1989, the directive of December 16, 1988 is amended further to adjust the limits for the following categories, as provided under the terms of the current bilateral textile agreement between the Governments of the United States and Macau:

Category	Adjusted 12-Mon. limit <sup>1</sup>
200-239, 300-369, 400-469, 600-670 and 800-899, as a group.	81,192,633 square meters equivalent.
Group I:	
200-239, 300-369, 600-670 and 800-899, as a group.	78,443,416 square meters equivalent.
Sublevels in Group I:	
333/334/335/833/834/835.	176,042 dozen of which not more than 82,063 dozen shall be in categories 333/335/833/835.
338.....	219,032 dozen.
339.....	929,875 dozen.
340.....	212,101 dozen.
341.....	138,349 dozen.
345.....	37,568 dozen.
347/348/847.....	536,417 dozen.
633/634/635.....	352,990 dozen.
640.....	78,155 dozen.
641/840.....	141/860 dozen.
642/842.....	78,260 dozen.
645/646.....	183,202 dozen.
647/648.....	369,577 dozen.
845/846.....	216,145 dozen.
Group II:	
400-469, as a group.....	1,419,075 square meters equivalent.

<sup>1</sup> The limits have not been adjusted to account for any imports exported after December 31, 1988.

The Committee for the Implementation of Textile Agreements has determined that these actions fall within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553(a)(1).

Sincerely,

William J. Dulka,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

[FR Doc. 89-27433 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-DR-M

## Announcement of Import Limits for Certain Cotton, Wool and Man-Made Fiber Textiles and Textile Products and Silk Blend and Other Vegetable Fiber Apparel Produced or Manufactured in Malaysia

November 16, 1989.

**AGENCY:** Committee for the Implementation of Textile Agreements (CITA).

**ACTION:** Issuing a directive to the Commissioner of Customs establishing limits for the new agreement year.

**EFFECTIVE DATE:** January 1, 1990.

### FOR FURTHER INFORMATION CONTACT:

Kimbang Pham, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce (202) 377-4212. For information on the quota status of these limits, refer to the Quota Status Reports posted on the bulletin boards of each Customs port or call (202) 343-6496. For information on embargoes and quota re-openings, call (202) 377-3715.

### SUPPLEMENTARY INFORMATION:

Authority: Executive Order 11651 of March 3, 1972, as amended; sec. 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854).

A copy of the current bilateral agreement between the Governments of the United States and Malaysia is available from the Textiles Division, Bureau of Economic and Business Affairs, U.S. Department of State (202) 647-1998.

A description of the textile and apparel categories in terms of HTS numbers is available in the *Correlation: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States* (see *Federal Register* notice 53 FR 44937, published on November 7, 1988).

The letter to the Commissioner of Customs and the actions taken pursuant to it are not designed to implement all of the provisions of the bilateral agreement, but are designed to assist only in the implementation of certain of its provisions.

William J. Dulka,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

Committee for the Implementation of Textile Agreements

November 16, 1989.

Commissioner of Customs,  
Department of the Treasury, Washington, D.C. 20229.

Dear Commissioner: Under the terms of Section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854), and the Arrangement Regarding International Trade in Textiles done at Geneva on December 20, 1973, as further extended on July 31, 1986; pursuant to the Bilateral Cotton, Wool and Man-Made Fiber Textiles and Textile Products and Silk Blend and Other Vegetable Fiber Apparel Agreement, effected by exchange of notes dated July 1 and 11, 1985, as amended, between the Governments of the United States and Malaysia; and in accordance with the provisions of Executive Order 11651 of March 3, 1972, as amended, you are directed to prohibit, effective on January 1, 1990, entry into the United States for consumption and withdrawal from warehouse for consumption of cotton, wool and man-made fiber textiles and textile products and silk blend and other vegetable



fiber apparel in the following categories, produced or manufactured in Malaysia and exported during the twelve-month period beginning on January 1, 1990 and extending through December 31, 1990, in excess of the following restraint limits:

Category	12-mo restraint limit
218, 219, 220, 225-227, 313-315, 317, 326, 613/614/615/617, as a group.	65,763,089 square meters.
Sublevels within the group:	
218	4,227,627 square meters.
219	20,480,505 square meters.
220	20,480,505 square meters.
225	20,480,505 square meters.
226	20,480,505 square meters.
227	20,480,505 square meters.
313	24,426,290 square meters.
314	26,305,236 square meters.
315	20,480,505 square meters.
317	20,480,505 square meters.
326	2,818,418 square meters.
613/614/615/617	20,480,505 square meters.
Other specific limits:	
200	178,278 kilograms.
237	239,871 dozen.
300/301	1,890,825 kilograms.
331/631	1,298,213 dozen pairs.
333/334/335/835	148,877 dozen of which not more than 74,439 dozen shall be in Category 333, not more than 74,439 dozen shall be in Category 334, not more than 74,439 dozen shall be in Category 335 and not more than 74,439 dozen shall be in Category 835.
336/636	275,284 dozen.
338/339	682,495 dozen.
340/640	834,724 dozen.
341/641	1,081,832 dozen of which not more than 385,944 dozen shall be in Category 341.
342/642/842	259,122 dozen.
345	99,363 dozen.
347/348	279,489 dozen.
351/651	160,787 dozen.
363	4,764,064 numbers.
369-S <sup>1</sup>	515,958 kilograms.
435	14,125 dozen.
438-W <sup>2</sup>	11,561 dozen.
442	17,216 dozen.
445/446	27,326 dozen.
604	829,085 kilograms.
634/635	504,922 dozen of which not more than 220,338 dozen shall be in Category 635.

Category	12-mo restraint limit
638/639	297,438 dozen.
645/646	227,499 dozen.
647/648	1,070,581 dozen of which not more than 749,406 dozen shall be in Category 647-K <sup>3</sup> and not more than 749,406 dozen shall be in Category 648-K <sup>4</sup> .
Group II:	
201, 222-224, 229, 239, 330, 332, 349, 350, 352-354, 359-362, 369-O, <sup>5</sup> 400-434, 436, 438-O, <sup>6</sup> 439, 440, 443, 444, 447, 448, 459, 464-469, 600-603, 606, 607, 611, 618-622, 624-630, 632, 633, 643, 644, 649, 650, 652-654, 659, 665-670, 831-834, 836, 838, 839, 840 and 843-859, as a group.	26,603,393 square meters equivalent.

<sup>1</sup> In Category 369-S, only	HTS number
6307.10.2005.	
<sup>2</sup> In Category 438-W, only	HTS numbers
6104.21.0060, 6104.23.0020, 6104.29.2048,	
6106.20.1010, 6106.20.1020, 6106.90.1010,	
6106.90.1020, 6106.90.2020, 6106.90.3020,	
6109.90.1540, 6110.10.2080, 6110.30.1560,	
6110.90.0074 and 6114.10.0040.	
<sup>3</sup> In Category 647-K, only	HTS numbers
6103.23.0040, 6103.23.0045, 6103.29.1020,	
6103.29.1030, 6103.43.1520, 6103.43.1540,	
6103.43.1550, 6103.43.1570, 6103.49.1020,	
6103.49.1060, 6103.49.3014, 6112.12.0050,	
6112.19.1050, 6112.20.1060 and 6113.00.0045.	
<sup>4</sup> In Category 648-K, only	HTS numbers
6104.23.0032, 6104.23.0034, 6104.29.1030,	
6104.29.1040, 6104.29.2038, 6104.63.2010,	
6104.63.2025, 6104.63.2030, 6104.63.2060,	
6104.69.2010, 6104.69.2020, 6104.69.3026,	
6112.12.0060, 6112.19.1060, 6112.20.1070,	
6113.00.0050 and 6117.90.0046.	
<sup>5</sup> In Category 369-O, only	HTS numbers except
637.10.2005 in Category 369-S.	
<sup>6</sup> In Category 438-O, only	HTS numbers
6103.21.0050, 6103.23.0025, 6105.20.1000,	
6105.90.1000, 6105.90.3020, 6109.90.1520,	
6110.10.2070, 6110.30.1550, 6110.90.0072,	
6114.10.0020 and 6117.90.0024.	

Imports charged to these categories for the period January 1, 1989 through December 31, 1989 shall be charged against the levels of restraint to the extent of any unfilled balances. In the event the limits established for that period have been exhausted by previous entries, such goods shall be subject to the limits set forth in this directive.

The limits set forth above are subject to adjustment in the future according to the provisions of the bilateral agreement, effected by exchange of notes dated July 1 and 11, 1985, as amended, between the Governments of the United States and Malaysia.

In carrying out the above directions, the Commissioner of Customs should construe entry into the United States for consumption to include entry for consumption into the Commonwealth of Puerto Rico.

The Committee for the Implementation of Textile Agreements has determined that

these actions fall within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553(a)(1).

Sincerely,  
William J. Dulka,  
Acting Chairman, Committee for the  
Implementation of Textile Agreements.  
[FR Doc. 89-22435 Filed 11-21-89; 8:45 am]  
BILLING CODE 3510-DR-M

### Announcement of Import Limits for Certain Cotton, Man-Made Fiber, Silk Blend and Other Vegetable Fiber Textile Products Produced or Manufactured in Pakistan

November 16, 1989.

**AGENCY:** Committee for the Implementation of Textile Agreements (CITA).

**ACTION:** Issuing a directive to the Commissioner of Customs establishing limits for the new agreement year.

**EFFECTIVE DATE:** January 1, 1990.

**FOR FURTHER INFORMATION CONTACT:** Anne Novak, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce (202) 377-4212. For information on the quota status of these limits, refer to the Quota Status Reports posted on the bulletin boards of each Customs port or call (202) 343-6498. For information on embargoes and quota reopenings, call (202) 377-3715.

### SUPPLEMENTARY INFORMATION:

Authority: Executive Order 11651 of March 3, 1972, as amended; section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854).

A copy of the current bilateral textile agreement between the Governments of the United States and Pakistan is available from the Textiles Division, Bureau of Economic and Business Affairs, U.S. Department of State (202) 647-1998.

A description of the textile and apparel categories in terms of HTS numbers is available in the Correlation: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States (see Federal Register notice 53 FR 44937, published on November 7, 1988).

The letter to the Commissioner of Customs and the actions taken pursuant to it are not designed to implement all of the provisions of the bilateral agreement, but are designed to assist



only in the implementation of certain of its provisions.

William J. Dulka,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

### Committee for the Implementation of Textile Agreements

November 16, 1989.

Commissioner of Customs,  
Department of the Treasury, Washington, DC 20229.

Dear Commissioner: Under the terms of section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854), and the Arrangement Regarding International Trade in Textiles done at Geneva on December 20, 1973, as further extended on July 31, 1988; pursuant to the Bilateral Cotton, Man-Made Fiber, Silk Blend and Other Vegetable Fiber Textile Agreement, effected by exchange of notes dated May 20, 1987 and June 11, 1987, as amended, between the Governments of the United States and Pakistan; and in accordance with the provisions of Executive Order 11651 of March 3, 1972, as amended, you are directed to prohibit, effective on January 1, 1990, entry into the United States for consumption, and withdrawal from warehouse for consumption, of cotton, man-made fiber, silk blend and other vegetable fiber textile products in the following categories, produced or manufactured in Pakistan and exported during the twelve-month period which begins on January 1, 1990 and extends through December 31, 1990, in excess of the following restraint limits:

Category group I	Twelve-month restraint limit
226/313	71,585,886 square meters
315	49,433,593 square meters
331	796,278 dozen pairs
334	48,513 dozen
335	59,903 dozen
336	160,578 dozen
338	3,173,632 dozen
339	735,309 dozen
340	171,819 dozen
341	297,089 dozen
342	98,003 dozen
347/348	386,592 dozen
351	49,002 dozen
352	245,008 dozen
363	29,519,438 numbers
369-D <sup>1</sup>	1,111,341 kilograms of which not more than 416,753 kilograms shall be in piled dish towels—HTS number 6302.60.0010
369-R <sup>2</sup>	5,979,284 kilograms
300, 301, 314, 317, 326, 330, 332, 333, 345, 349, 350, 353, 354, 359, 360-362, 369-S <sup>3</sup> , and 369-0 <sup>4</sup> , as a group	69,115,775 square meters equivalent
Sublevels within Group II	
317	5,016,764 square meters
350	25,000 dozen
369 S	385,554 kilograms

Category group I	Twelve-month restraint limit
Group III	
218	2,257,544 square meters
219	3,762,573 square meters
220	3,344,509 square meters
229	306,481 kilograms
237	65,000 dozen
607	453,592 kilograms
613/614	14,041,360 square meters
615	14,937,616 square meters
617	3,511,735 square meters
631	535,957 dozen pairs
634	41,946 dozen
635	16,965 dozen
636	95,281 dozen
638/639	238,203 dozen
640	86,099 dozen
641	95,531 dozen
647/648	506,219 dozen
650/650	55,000 dozen
659	68,039 kilograms
666	1,133,981 kilograms

<sup>1</sup> In Category 369-D, dish towels in HTS numbers 6302.60.0010, 6302.91.0005 and 6302.91.0045.

<sup>2</sup> In Category 369-R, only HTS number 6307.10.2020.

<sup>3</sup> In Category 369-S, only HTS number 6307.10.2005.

<sup>4</sup> In Category 369-O, all HTS numbers except 6302.60.0010, 6302.91.0005 and 6302.91.0045 (369-D); 6307.10.2020 (369-R) and 6307.10.2005 (369-S).

Imports charged to these category limits for the period January 1, 1989 through December 31, 1989 shall be charged against the levels of restraint to the extent of any unfilled balances. In the event the limits established for that period have been exhausted by previous entries, such goods shall be subject to the levels set forth in this directive.

The levels set forth above are subject to adjustment in the future according to the provisions of the current bilateral textile agreement between the Governments of the United States and Pakistan.

In carrying out the above directions, the Commissioners of Customs should construe entry into the United States for consumption to include entry for consumption into the Commonwealth of Puerto Rico.

The Committee for the Implementation of Textile Agreements has determined that these actions fall within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553(a)(1).

Sincerely,

William J. Dulka,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

[FR Doc. 89-27382 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-DR-M

### Announcement of a Request for Bilateral Textile Consultations With the Government of the People's Republic of China to Review Trade in Category 836

November 16, 1989.

**AGENCY:** Committee for the Implementation of Textile Agreements (CITA).

**ACTION:** Issuing a directive to the Commissioner of Customs establishing a limit.

**EFFECTIVE DATE:** November 24, 1989.

### FOR FURTHER INFORMATION CONTACT:

Jerome Turtola, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 377-4212. For information on the quota status of this limit, refer to the Quota Status Reports posted on the bulletin boards of each Customs port or call (202) 566-6828. For information on embargoes and quota re-openings, call (202) 377-3715. For information on categories on which consultations have been requested, call (202) 377-3740.

### SUPPLEMENTARY INFORMATION:

**Authority:** Executive Order 11651 of March 3, 1972, as amended; sec. 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854).

On October 6, 1989, pursuant to the terms of the Bilateral Cotton, Wool, Man-Made Fiber, Silk Blend and Other Vegetable Fiber Textile Agreement of February 2, 1988, as amended, between the Government of the United States and the People's Republic of China, the Government of the United States requested consultations concerning dresses in Category 836, produced or manufactured in the People's Republic of China.

The U.S. Government has decided to implement a 15-month restraint limit on category 836 as set forth under the terms of the bilateral agreement. The limit will be implemented in two periods: October 6 through December 31, 1989 and January 1 through December 31, 1990. This directive establishes the level for the first period; the level for the second period will be published in a subsequent directive.

A summary market statement concerning this category follows this notice.

Anyone wishing to comment or provide data or information regarding the treatment of Category 836, under the agreement with the People's Republic of China, or to comment on domestic production or availability of products included in the category, is invited to submit 10 copies of such comments or information to Auggie D. Tantillo, Chairman, Committee for the Implementation of Textile Agreements, U.S. Department of Commerce, Washington, DC 20230.

Because the exact timing of the consultations is not yet certain, comments should be submitted promptly. Comments or information submitted in response to this notice will



be available for public inspection in the Office of Textiles and Apparel, Room H3100, U.S. Department of Commerce, 14th and Constitution Avenue NW., Washington, DC.

Further comments may be invited regarding particular comments or information received from the public which the Committee for the Implementation of Textile Agreements considers appropriate for further consideration.

The solicitation of comments regarding any aspect of the agreement or the implementation thereof is not a waiver in any respect of the exemption contained in 5 U.S.C. 553(a)(1) relating to matters which constitute "a foreign affairs function of the United States."

The United States remains committed to finding a solution concerning Category 836. Should such a solution be reached in consultations with the Government of the People's Republic of China, further notice will be published in the *Federal Register*.

A description of the textile and apparel categories in terms of HTS numbers is available in the *Correlation: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States* (see *Federal Register* notice 53 FR 44937, published on November 7, 1988).

William J. Dulka,  
Acting Chairman, Committee for the  
Implementation of Textile Agreements.

#### China—Market Statement

*Category 836—Dresses of Silk-Blend and Vegetable Fiber other than Cotton*  
September 1989.

#### Summary and Conclusions

U.S. imports of dresses of silk-blend and vegetable fiber other than cotton (Category 836) from China reached 166,592 dozen during the year ending June 1989, nearly four times the 44,406 dozen imported in the same period a year earlier. During the first six months of 1989 imports of silk-blend and vegetable fiber other than cotton dresses (Category 836) from China reached 138,950 dozen, more than five times the January-June 1988 level and more than double the 52,540 dozen imported in calendar year 1988. China is the number one supplier of silk-blend and vegetable fiber other than cotton dresses to the U.S. accounting for 64 percent of total category 836 imports in the first half of 1989. China accounted for 32 percent of total category imports in calendar year 1988.

Imports of dresses in Category 836 compete directly with domestically produced cotton and man-made fiber dresses (Category 336/636). The U.S. market for cotton and man-made fiber dresses (Category 336/636) is being disrupted by imports. The sharp and substantial increase of Category 836 imports from China is causing further disruption in the U.S. cotton and man-made fiber dress market.

#### Import Penetration and Market Share

U.S. production of cotton and man-made fiber dresses (Category 336/636) has been declining since 1982 and fell 15 percent in 1988 from 1987 to its lowest level ever. The ratio of imports to domestic production in Category 336/636 has risen from 10 percent in 1982 to 41 percent in 1988. The domestic manufacturers' share of the U.S. cotton and man-made fiber dress market declined 20 percentage points since 1982, falling from 91 percent in 1982 to 71 percent in 1988. Imports of Category 836 are exacerbating the disruption.

U.S. imports of silk-blend and vegetable fiber other than cotton dresses (Category 836) were 272,440 dozen in the year ending June 1989, 63 percent above the level in the same period in 1988. Imports continued to increase in 1989 reaching 216,461 dozen in the first six months of 1989, double the January-June 1988 level. When directly competitive Category 836 imports are included in the market analysis, the import to production ratio increases to 43 percent and the domestic manufacturers' market share falls to 70 percent in 1988.

#### Duty-Paid Value and U.S. Producers' Price

Approximately 99 percent of Category 836 imports from China during the first six months of 1989 entered under HTSUSA number 6204.49.0060—woven dresses of vegetable fiber other than cotton. These dresses entered the U.S. at landed duty-paid values below U.S. producers' prices for comparable dresses.

#### Committee for the Implementation of Textile Agreements

November 16, 1989.

Commissioner of Customs,  
Department of the Treasury, Washington,  
D.C. 20229

Dear Commissioner: Under the terms of section 204 of the Agricultural Act of 1956, as amended (7 U.S.C. 1854), and the Arrangement Regarding International Trade in Textiles done at Geneva on December 20, 1973, as further amended on July 31, 1986; pursuant to the Bilateral Cotton, Wool, Man-Made Fiber, Silk Blend and Other Vegetable Fiber Textile Agreement of February 2, 1988, as amended, between the Governments of the United States and the People's Republic of China; and in accordance with the provisions of Executive Order 11651 of March 3, 1972, as amended, you are directed to prohibit, effective on November 24, 1989, entry into the United States for consumption and withdrawal from warehouse for consumption of silk blend and other vegetable fiber textile products in Category 836, produced or manufactured in China and exported during the period which began on October 6, 1989 and extends through December 31, 1989, in excess of 50,293 dozen.<sup>1</sup>

<sup>1</sup> The limit has not been adjusted to account for any imports exported after October 5, 1989.

Textile products in Category 836 which have been exported to the United States on and after January 1, 1989 shall remain subject to the Group IV limit established for the period January 1, 1989 through December 31, 1989.

Textile products in Category 836 which have been exported to the United States prior to October 6, 1989 shall not be subject to the limit established in this directive.

In carrying out the above directions, the Commissioner of Customs should construe entry into the United States for consumption to include entry for consumption into the Commonwealth of Puerto Rico.

The Committee for the Implementation of Textile Agreements has determined that this action falls within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553(a)(1).

Sincerely,  
William J. Dulka,  
Acting Chairman, Committee for the  
Implementation of Textile Agreements.  
[FR Doc. 89-27434 Filed 11-21-89; 8:45 am]  
BILLING CODE 3510-DR-M

#### Announcement of Requests for Bilateral Consultations With the Government of Thailand on Certain Cotton and Man-Made Fiber Textile Products

November 16, 1989.

AGENCY: Committee for the  
Implementation of Textile Agreements.  
ACTION: Notice.

FOR FURTHER INFORMATION CONTACT:  
Ross Arnold, International Trade  
Specialist, Office of Textiles and  
Apparel, U.S. Department of Commerce,  
(202) 377-4212. For information on  
categories on which consultations have  
been requested, call (202) 377-3740.

#### SUPPLEMENTARY

INFORMATION: Authority. Executive  
Order 11651 of March 3, 1972, as  
amended; Section 204 of the Agricultural  
Act of 1956, as amended (7 U.S.C. 1854).

The Government of the United States requested consultations with the Government of Thailand regarding cotton and man-made fiber textile products in Categories 314 and 614 (October 30, 1989) and Categories 336/636 and 647/648 (October 31, 1989), produced or manufactured in Thailand.

The purpose of this notice is to advise the public that, if no solution is agreed upon in consultations with Thailand, the Committee for the Implementation of Textile Agreements may later establish limits for the entry and withdrawal from warehouse for consumption of textile products in Categories 314, 614, 336/636 and 647/648, produced or manufactured in Thailand and exported during the twelve-month periods which began, in



the case of Categories 314 and 614, on October 30, 1989 and extends through October 29, 1990; and, in the case of Categories 336/636 and 647/648, on October 31, 1989 and extends through October 30, 1990, at the following levels:

Category	Call levels
314	25,191,959 square meters
336/636	93,787 dozen
614	12,026,288 square meters
647/648	542,063 dozen

Summary market statements concerning these categories follow this notice.

Anyone wishing to comment or provide data or information regarding the treatment of Categories 314, 614, 336/636 and 647/648, or to comment on domestic production or availability of products included in these categories, is invited to submit 10 copies of such comments or information to Auggie D. Tantillo, Chairman, Committee for the Implementation of Textile Agreements, U.S. Department of Commerce, Washington, DC 20230.

Because the exact timing of the consultations is not yet certain, comments should be submitted promptly. Comments or information submitted in response to this notice will be available for public inspection in the Office of Textiles and Apparel, Room H3100, U.S. Department of Commerce, 14th and Constitution Avenue, NW., Washington, DC.

Further comment may be invited regarding particular comments or information received from the public which the Committee for the Implementation of Textile Agreements considers appropriate for further consideration.

The solicitation of comments regarding any aspect of the agreement or the implementation thereof is not a waiver in any respect of the exemption contained in 5 U.S.C. 553(a)(1) relating to matters which constitute "a foreign affairs function of the United States."

The United States remains committed to finding a solution concerning Categories 314, 614, 336/636 and 647/648. Should such a solution be reached in consultations with the Government of Thailand, further notice will be published in the **Federal Register**.

A description of the textile and apparel categories in terms of HTS numbers is available in the Correlation: Textile and Apparel Categories with the Harmonized Tariff Schedule of the United States (see **Federal Register**

notice 53 FR 44937, published on November 7, 1988).

William J. Dulka,

Acting Chairman, Committee for the Implementation of Textile Agreements.

#### Thailand—Market Statement

##### Category 314—Cotton Poplin and Broadcloth Fabric

October 1989

##### Import Situation and Conclusion

U.S. imports of cotton poplin and broadcloth fabric—category 314—from Thailand reached 24,710 square meters in the year ending August 1989, 33 percent above the 18,155,690 square meters imported a year earlier. During the first eight months of 1989, Thailand shipped 17,060,055 square meters, 43 percent above their January-August 1988 level and 90 percent of their total calendar year 1988 level. In the year ending August 1989, Thailand was the third largest supplier and the largest uncontrolled supplier accounting for 13 percent of total category 314 imports.

The sharp and substantial increase of category 314 imports from Thailand is disrupting the U.S. market for cotton poplin and broadcloth fabric.

##### Import Penetration and Market Share

Between 1986 and 1988 U.S. cotton poplin and broadcloth fabric producers began to regain market share lost to imports as production increased and imports declined. However, in the first half of 1989, U.S. production dropped 11 percent below the January-June 1988 level and imports surged, increasing 35 percent in the first half of 1989 over the same period in 1988.

The U.S. producers' share of the cotton poplin and broadcloth fabric market dropped 10 percentage points in just six months as a result of the January-June import surge. The U.S. market share fell to 43 percent in the first half of 1989, down from 53 percent in the first half of 1988. The ratio of imports to domestic production increased to 135 percent during this same period, 52 percent above the 89 percent ratio in January-June 1988.

##### Duty Paid Value and U.S. Producers' Price

Approximately 94 percent of Category 314 imports from Thailand during January-August 1989 entered under HTS number 5210.11.6020—poplin and broadcloth fabrics of cotton, containing less than 85 percent by weight of cotton, mixed mainly or solely with man-made fibers, weighing not more than 200 grams per meter square. These fabrics entered the U.S. at duty paid landed values below U.S. producers' prices for comparable fabrics.

#### Thailand—Market Statement

##### Category 614—Man-Made Fiber Poplin and Broadcloth Fabric

October 1989

##### Import Situation and Conclusion

U.S. imports of man-made fiber poplin and broadcloth fabric—category 614—from Thailand reached 12,319,174 square meters in the year ending August 1989, 82 percent

above the 6,783,725 square meters imported a year earlier. During the first eight months of 1989, Thailand shipped 8,798,564 square meters, 77 percent above their January-August 1988 level and four percent above their total calendar year 1988 level. In the year ending August 1989, Thailand was the largest supplier accounting for nearly one-quarter of total category 614 imports.

The sharp and substantial increase of Category 614 imports from Thailand is disrupting the U.S. market for man-made fiber poplin and broadcloth fabric.

##### Import Penetration and Market Share

U.S. production of man-made fiber poplin and broadcloth fabric fell to a depressed 616,724,000 square meter level in 1988, 21 percent below the 1987 production level. During the first half of 1989, U.S. production of man-made fiber poplin and broadcloth fabric increased six percent above the depressed January-June 1988 level. Annualizing the first half production would result in a 1989 production level 10 percent above the depressed 1988 level, but 13 percent below the 1987 level. U.S. imports of category 614 followed U.S. production, declining in 1988 and increasing in the first half of 1989. In the case of imports, however, the January-June 1989 imports surged, doubling the January-June 1988 level. Annualizing first half category 614 imports would result in a 1989 record level of imports, 71 percent above the 1988 level and 33 percent above the 1987 level.

The U.S. producers' share of the man-made fiber poplin and broadcloth fabric market dropped three percentage points in just six months as a result of the January-June import surge. The ratio of imports to domestic production doubled during this same period.

##### Duty paid Value and U.S. Producers' Price

Approximately 93 percent of category 614 imports from Thailand during the January-August 1989 period entered under HTS number 5513.11.0020—poplin and broadcloth fabrics of man-made fibers containing 85 percent or less of such fibers, mixed mainly or solely with cotton, of a weight not exceeding 170 grams per meter square. These fabrics entered the U.S. at duty paid landed values below U.S. producers' prices for comparable fabrics.

#### Thailand—Market Statement

##### Category 336/636—Cotton and Man-Made Fiber Dresses

October 1989.

##### Summary and Conclusions

U.S. imports of cotton and man-made fiber dresses (Category 336/636) from Thailand reached 70,598 dozen during the year ending July 1989, more than two and a half times over the 27,145 dozen imported a year earlier. During the first seven months of 1989, imports of cotton and man-made fiber dresses (Category 336/636) from Thailand reached 57,567 dozen, two and a half times the January-July 1988 level and 59 percent above the 36,175 dozen imported in calendar year 1988.



The sharp and substantial increase in Category 336/636 imports from Thailand is causing disruption in the U.S. market for cotton and man-made fiber dresses.

#### *U.S. Production and Market Share*

U.S. production of cotton and man-made fiber dresses (Category 336/636) has been on the decline, falling from 19,843,000 dozen in 1982 to 13,287,000 dozen in 1988, a decline of 33 percent. Production for the year ending March 1989 at 13,005,000 dozen was down 12 percent from the year ending March 1988 level. The domestic manufacturers' share of the cotton and man-made fiber dress market declined 20 percentage points since 1982, falling from 91 percent in 1982 to 71 percent in 1988. The domestic market share continued to decline, falling to 70 percent for the year ending March 1989.

#### *U.S. Imports and Import Penetration*

U.S. imports of cotton and man-made fiber dresses (Category 336/636) almost tripled, increasing from 1,933,000 dozen in 1982 to 5,493,000 dozen in 1988. Imports continued to increase in 1989, reaching 3,875,606 dozen in the first seven months of 1989, 6 percent above the level imported during the same period in 1988. The ratio of imports to domestic production quadrupled, rising from 10 percent in 1982 to 41 percent in 1988. The import to production ratio increased further, reaching 43 percent in the year ending in March 1989.

#### *Duty-Paid Value and U.S. Producers' Price*

Approximately 69 percent of Category 336/636 imports from Thailand during the first seven months of 1989 entered under HTSUSA numbers 6204.42.3050—women's cotton woven dresses, other than of yarn dyed fabric, 6204.43.4040—girls' man-made fiber woven dresses, other than of yarn dyed fabric and 6104.43.2010—women's man-made fiber knit dresses. These dresses entered the U.S. at landed duty-paid values below U.S. producers' prices for comparable dresses.

#### *Thailand—Market Statement*

##### *Category 647/648—Man-Made Fiber Trousers, Slacks and Shorts*

October 1989.

#### *Summary and Conclusions*

U.S. imports of man-made fiber trousers, slacks and shorts (Category 647/648) from Thailand reached 419,256 dozen in the year ending July 1989, almost double the 215,347 dozen imported a year earlier. Imports of man-made fiber trousers, slacks and shorts from Thailand for the first seven months of 1989 were 308,888 dozen, over two times the 140,224 dozen imported during the same period in 1988.

The sharp and substantial increase in Category 647/648 imports from Thailand is causing disruption in the U.S. market for man-made fiber trousers, slacks and shorts.

#### *U.S. Production and Market Share*

U.S. production of man-made fiber trousers, slacks and shorts (Category 647/648) remained relatively flat between 1982 and 1988, averaging 40,901,000 dozen per year. U.S. production has been declining since

1986, falling to 37,117,000 dozen in 1987 and to 32,634,000 dozen in 1988. The 1988 level was 12 percent below the 1987 level and 20 percent below the 1982-86 average level. Production for the year ending March 1989 fell to 341,838,000 dozen, 9 percent below the amount produced during the same period a year earlier. The domestic manufacturers' share of the U.S. market declined in every year since 1982. Their share dropped 15 percentage points in just six years, falling from 76 percent in 1982 to 61 percent in 1988. The domestic market share continued to decline, falling to 59 percent for the year ending March 1989.

#### *U.S. Imports and Import Penetration*

U.S. imports of man-made fiber trousers, slacks and shorts (Category 647/648) increased 58 percent between 1982 and 1988, increasing from 13,163,000 dozen in 1982 to 20,766,000 dozen in 1988. Imports during the year ending July 1989 reached 22,937,223 dozen, 18 percent above the 19,486,738 dozen imported during the same period a year earlier. Imports are up 18 percent in the first seven months of 1989 over the same period in 1988. The ratio of imports to domestic production doubled during the past six years, rising from 32 percent in 1982 to 64 percent in 1988. The import to production ratio increased to 68 percent in the year ending in March 1989.

#### *Duty-Paid Value and U.S. Producers' Price*

The majority of Category 647/648 imports from Thailand during the first seven months of 1989 entered under HTSUSA numbers 6203.43.4010—men's woven trousers of man-made fibers; 6203.43.4030—men's shorts of man-made fibers; 6104.63.2010—women's knit trousers and breeches of man-made fibers; 6104.63.2025—girls' knit trousers and breeches of man-made fiber other than those imported as parts of playsuits; 6104.63.2030—women's man-made fiber shorts, knitted or crocheted; 6204.63.3532—women's woven shorts of artificial fibers. These trousers and shorts entered the U.S. at landed duty-paid values below U.S. producers' prices for comparable garments.

[FR Doc. 27432 Filed 11-21-89; 8:45 am]

BILLING CODE 3510-DR-M

## DEPARTMENT OF DEFENSE

### Public Information Collection Requirement Submitted to OMB for Review

#### **ACTION:** Notice.

The Department of Defense has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

*Title, Applicable Form, and Applicable OMB Control Number:* DoD FAR Supplement, Part 230, Cost Accounting Standards; DD Form 1861; and OMB Control Number 0704-0267.

*Type of Request:* Reinstatement.

*Average Burden Hours/Minutes Per Response:* 10 Hours.

*Frequency of Response:* Annually.

*Number of Respondents:* 75.

*Annual Burden Hours:* 750.

*Annual Responses:* 75.

*Needs and Uses:* This information is needed to apply DoD profit policy which differentiates capital employed profit among asset categories. Higher profit will be paid on equipment than buildings; no profit will be paid on land. The basic information is already included under present Cost Accounting Standards.

*Affected Public:* Businesses or other for-profit.

*Respondent's Obligation:* Required to obtain or retain a benefit.

*OMB Desk Officer:* Ms. Eyvette R. Flynn.

Written comments and recommendations on the proposed information collection should be sent to Ms. Eyvette R. Flynn at Office of Management and Budget, Desk Officer, Room 3235, New Executive Office Building, Washington, DC 20503.

*DOD Clearance Officer:* Ms. Pearl Rascoe-Harrison.

Written request for copies of the information collection proposal should be sent to Ms. Rascoe-Harrison, WHS/DIOR, 1215 Jefferson Davis Highway, Suite 1204, Arlington, Virginia 22202-4302.

Dated: November 17, 1989.

L.M. Bynum,

*Alternate OSD Federal Register Liaison Officer, Department of Defense.*

[FR Doc. 89-27463 Filed 11-21-89; 8:45 am]

BILLING CODE 3810-01-M

## Office of the Secretary

### Strategic Defense Initiative Advisory Committee; Meetings

**ACTION:** Notice of advisory committee meetings.

**SUMMARY:** The Strategic Defense Initiative (SDI) Advisory Committee will meet in closed session in Washington, DC, on December 7, 1989.

The mission of the SDI Advisory Committee is to advise the Secretary of Defense and the Director, Strategic Defense Initiative Organization on scientific and technical matters as they affect the perceived needs of the Department of Defense. At the meeting on December 7, 1989 the committee will discuss status of SDI research and management issues.



In accordance with section 10(d) of the Federal Advisory Committee Act, Public Law No. 92-463, as amended (5 U.S.C. App II, (1982)), it has been determined that this SDI Advisory Committee meeting concerns matters listed in 5 U.S.C., 552b(c)(1) (1982), and that accordingly this meeting will be closed to the public.

Dated: November 17, 1989.

L.M. Bynum,

*Alternate OSD Federal Register Liaison Officer, Department of Defense.*

[FR Doc. 89-27464 Filed 11-21-89; 8:45 am]

BILLING CODE 3810-01-M

## DEPARTMENT OF EDUCATION

### Meetings; National Assessment Governing Board

**AGENCY:** National Assessment Governing Board, Education.

**ACTION:** Notice of meeting.

**SUMMARY:** This notice sets forth the schedule and proposed agenda of a forthcoming teleconference meeting of the Reading Committee of the National Assessment Governing Board. This notice also describes the functions of the Board. Notice of this meeting is required under section 10(a)(2) of the Federal Advisory Committee Act. This document is intended to notify the general public of their opportunity to attend.

**DATE:** Monday, November 27, 1989.

**TIME:** 11:10 a.m. (e.s.t.) until adjournment.

**PLACE:** National Assessment Governing Board, Suite 7322, 1100 L Street NW., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Roy Truby, Executive Director, National Assessment Governing Board, Suite 7322, 1100 L Street NW., Washington, DC, 20005-4013, Telephone: (202) 357-6938.

**SUPPLEMENTARY INFORMATION:** The National Assessment Governing Board is established under section 406(i) of the General Education Provisions Act (GEPA) as amended by section 3403 of the National Assessment of Educational Progress Improvement Act (NAEP Improvement Act), title III-C of the Augustus F. Hawkins—Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988 (Pub. L. 100-297), (20 USC 1221e-1).

The Board is established to advise the Commissioner of the National Center for Education Statistics on policies and actions needed to improve the form and use of the National Assessment of Educational Progress, and develop

specifications for the design, methodology, analysis and reporting of test results. The Board also is responsible for selecting subject areas to be assessed, identifying the objectives for each age and grade tested, and establishing standards and procedures for interstate and national comparisons.

The Reading Committee of the National Assessment Governing Board will meet via teleconference on Monday, November 27, 1989 from 11:00 a.m. until the completion of business. Because this is a teleconference meeting, facilities will be provided so the public will have access to the Committee's deliberations. The purpose of this meeting is to update the Committee on the December 5, 1989 press conference and the reading consensus process.

Records are kept of all Board proceedings and are available for public inspection at the U.S. Department of Education, National Assessment Governing Board, Suite 7322, 1100 L Street NW., Washington, DC from 8:30 a.m. to 5:00 p.m., Monday through Friday.

Christopher T. Cross,

*Assistant Secretary for Educational Research and Improvement.*

[FR Doc. 89-27358 Filed 11-21-89; 8:45 am]

BILLING CODE 4000-01-M

### Advisory Committee on Student Financial Assistance; Meeting

**AGENCY:** Advisory Committee on Student Financial Assistance, Education.

**ACTION:** Notice of advisory committee meeting.

**SUMMARY:** This notice sets forth the schedule and proposed agenda of a forthcoming Symposium on Simplification of Need Analysis and the Delivery System hosted by the Advisory Committee on Student Financial Assistance. This notice also describes the functions of the Committee. Notice of this meeting is required under section 10(a)(2) of the Federal Advisory Committee Act. This document is intended to notify the general public of the opportunity to attend.

**DATE:** December 4, 1989 beginning at 9 a.m. and ending at 5 p.m.

**ADDRESS:** Hyatt Regency Washington on Capitol Hill, Yorktown Room, 400 New Jersey Avenue NW., Washington, DC 20001.

**FOR FURTHER INFORMATION CONTACT:** Brian K. Fitzgerald, Staff Director, Advisory Committee on Student Financial Assistance, Room 4600, ROB-3, 7th & D Streets SW., Washington, DC 20202-7582, (202) 732-3439.

**SUPPLEMENTARY INFORMATION:** The Advisory Committee on Student Financial Assistance is established under section 491 of the Higher Education Act of 1965 as amended by Public Law 100-50 (20 U.S.C. 1098). The Advisory Committee is established to provide advice and counsel to the Congress and the Secretary of Education on student financial aid matters, including providing technical expertise with regard to systems of need analysis and application forms and making recommendations that will result in the maintenance of access to postsecondary education for low- and middle-income students, and conducting a thorough study of institutional lending policy in the Stafford Student Loan Program. The Congress also requested the Advisory Committee's assistance in preparing for reauthorization of the Higher Education Act. The Symposium on Simplification of Need Analysis and the Delivery System is the first in a series of activities related to reauthorization.

The Advisory Committee will meet in Washington, DC, from 9:00 a.m. to 5:00 p.m. on December 4.

The proposed agenda includes:

(a) Overview of analytical issues relating to need analysis and the delivery system

(b) Discussion sessions on the following issues:

- Simplifying and Integrating Federal Need Analysis and Program Eligibility Models
- Exempting Disadvantaged Populations from Federal Need Analysis and Program Eligibility
- Streamlining Application and Reapplication Processes
- Minimizing the Impact of Federal Simplification/Integration on State and Institutional Aid Delivery
- Issues for Further Analysis

Records are kept of all Committee proceedings, and are available for public inspection at the Office of the Advisory Committee on Student Financial Assistance, Room 4600, 7th and D Streets SW., Washington, DC, from the hours of 9 a.m. to 5:30 p.m., weekdays, except Federal holidays.

Dated: November 13, 1989.

Brian K. Fitzgerald,

*Staff Director, Advisory Committee on Student Financial Assistance.*

[FR Doc. 89-27400 Filed 11-21-89; 8:45 am]

BILLING CODE 4000-01-M



## DEPARTMENT OF ENERGY

## Bonneville Power Administration

## Proposal To Establish Transmission Rate for Third AC Intertie Non-Federal Participation and Opportunity for Public Review and Comment

**AGENCY:** Bonneville Power Administration (BPA), DOE.

**ACTION:** Notice of and opportunity for review and comment. *BPA File No:* 3ACP-89. BPA requests that all comments and documents intended to become part of the Official Record in this process contain the file number designation 3ACP-89.

**SUMMARY:** In June of 1987, BPA undertook a public to describe and evaluate options for non-Federal participation in the northern portion of the Third AC (alternating current) Intertie. The Third AC Intertie would add approximately 1600 megawatts (MW) of transfer capability to the Pacific Northwest-Pacific Southwest (PNW-PSW) Intertie. BPA released its "Proposal for Non-Federal Participation in the Northern Portion of the Third AC Intertie" (Proposal) in December 1988. In the proposal, BPA reserved its share of the first 800 MW increase for its own use. BPA proposed to offer its share of the second 800 MW increase (725 MW) for use by PNW non-Federal scheduling utilities. BPA would retain physical ownership of facilities and decisionmaking authority over the operation, maintenance, planning, and construction of facilities.

In order to proceed with its review and analysis of the Proposal and to reach a final decision whether participation will be offered, BPA is beginning a transmission rate proceeding to develop a rate for participation. The rate will be a formula (referred to as pricing methodology throughout this Federal Register Notice) which is based on the costs associated with non-Federal use of the existing facilities and new construction required to achieve the second 800 MW increase, and which will be used to determine the up-front payment participants would make to BPA. BPA seeks Federal Energy Regulatory Commission (FERC) approval of the pricing methodology.

After the record of this rate case is filed with FERC, BPA plans to request letters of intent from PNW non-Federal scheduling utilities to determine if there is interest in participation. BPA believes that the rate adopted for participation will be an important factor in utilities' decisions to participate. If there is sufficient interest in participation, BPA

will proceed with preparation of an environmental impact statement (EIS) Upon issuance of its draft EIS to the public, BPA will begin contract negotiations with potential participants if it appears that BPA will offer participation. With issuance of the final EIS, BPA will decide whether to offer participation and, if participation is offered, its exact form. Participation contracts would be effective through 2016. Those contracts could be executed any time prior to the Third AC Intertie energization date, although BPA anticipates that participation contracts would be executed in late 1991 or early 1992. Participants would make an estimated payment when participation contracts are executed. After construction of the Third AC Intertie is completed, an adjustment to the payment would be made to reflect actual costs of construction, project energization date, and the timing of the estimated payment.

**Responsible Official:** Ms. Shirley R. Melton, Director, Division of Contracts and Rates, is the official responsible for the development of BPA's wholesale power and transmission rates. **DATES:** Persons wishing to become a formal "party" to the proceedings must notify BPA in writing of their intention to do so in accordance with requirements stated later in this notice. Petitions to intervene must be received by December 28, 1989, and should be addressed as follows: Honorable Dean F. Ratzman, Hearing Officer, c/o John Ciminello-APR, Hearing Clerk, Bonneville Power Administration, P.O. Box 12999, Portland, Oregon 97212. In addition, a copy of the intervention must be served on BPA's Office of General Counsel-APR, P.O. Box 3621, Portland, Oregon 97208.

BPA will prefile the testimony of its witnesses on December 11, 1989. Copies will be available in BPA's Public Information Center and will be mailed to all parties to the 1989 general rate proceeding and to others requesting it.

A prehearing conference will be held before the Hearing Officer at 9 a.m. on January 3, 1990, in the BPA Hearing room, 1002 NE. Holladay, Portland, Oregon. Registration for the prehearing conference will begin at 8:30 a.m. The Hearing Officer will act on all intervention petitions and oppositions to intervention petitions, rule on any motions, establish additional procedures, establish a service list, establish a procedural schedule, and consolidate parties with similar interests for purposes of filing jointly sponsored testimony and briefs and for expediting any necessary cross-examination. A notice of the dates and times of the

hearings will be mailed to all parties of record. Objections to orders made by the Hearing Officer at the prehearing conference must be made in person or through a representative at the prehearing conference.

The following proposed schedule is provided for informational purposes. A final schedule will be established by the Hearing Officer at the prehearing conference.

Dec. 22, 1989..... BPA Direct Case filed. Available at BPA's Public Information Center, 905 NE. 11th, 1st Floor, Portland, Oregon.  
Dec. 28, 1989..... Deadline for interventions to be filed.  
Jan. 3, 1990..... Prehearing Conference to set schedule and act on petitions to intervene.  
Technical Session to discuss testimony.  
Jan. 24, 1990..... BPA Witness Clarification.  
Feb. 7, 1990..... Parties' Direct Case and Rebuttal to BPA Direct Testimony filed.  
Feb. 21, 1990..... Parties' Witness Clarification.  
Mar. 1, 1990..... BPA and Parties' Rebuttal to Parties' Testimony filed.  
Mar. 12-14, 1990... Cross Examination.  
Apr. 11, 1990..... Draft Record of Decision.  
May 11, 1990..... Final Record of Decision.

**ADDRESS:** Written comments should be submitted to the Public Involvement Manager-ALP, Bonneville Power Administration, P.O. Box 12999, Portland, Oregon 9712.

**FOR FURTHER INFORMATION CONTACT:**

Ms. Shirley Price, Public Involvement office, at the address listed above, 503-230-3478. Oregon callers may use 800-452-8429; callers in California, Idaho, Montana, Nevada, Utah, Washington, and Wyoming may use 800-547-6048. Information may also be obtained from:

Mr. George E. Gwinnutt, Lower Columbia Area Manager, Suite 243, 1500 NE. Irving Street, Portland, Oregon 97232, 503-230-4551  
Mr. Robert N. Laffel, Eugene District Manager, Room 206, 211 East Seventh Street, Eugene, Oregon 97401, 503-687-6952  
Mr. Wayne R. Lee, Upper Columbia Area Manager, Room 561, West 920 Riverside Avenue, Spokane, Washington 99201, 509-456-2518  
Mr. George E. Eskridge, Montana District Manager, 800 Kensington, Missoula, Montana 59801, 406-329-3060  
Mr. Ronald K. Rodewald, Wenatchee District Manager, Room 307, 301 Yakima Street, Wenatchee, Washington 98801, 509-662-4377, extension 379  
Mr. Terence G. Esvelt, Puget Sound Area Manager, Suite 400, 201 Queen Anne Avenue, Seattle, Washington 98109-1030, 206-442-4130  
Mr. Thomas V. Wagenhoffer, Snake River Area Manager, 101 West Poplar, Walla Walla, Washington 99362, 509-522-6225  
Mr. Richard J. Itami, Idaho Falls District Manager, 1527 Hollipark Drive, Idaho Falls, Idaho 83401, 208-523-2706.



Mr. Thomas H. Blankenship, Boise District Manager, Room 494, 550 West Fort Street, Boise, Idaho 83724, 208-334-9137.

#### SUPPLEMENTARY INFORMATION:

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#### I. Background

The present transmission capability of the PNW-PSW Intertie transmission lines is about 6300 MW, 3200 MW on two AC transmission lines and 3100 MW on a direct current (DC) transmission line. BPA owns 100 percent of the DC transmission line and shares ownership of the AC transmission lines with Pacific Power & Light Company (PP&L) and Portland General Electric Company (PGE). BPA owns 2100 MW of the AC transmission lines.

A consortium of California parties is planning the southern portion of the Third AC Intertie Project. The California-Oregon Transmission Project would add a planned 1600 MW of transmission capability to the AC Intertie system in California, increasing transmission capability to 4800 MW.

Modifications to existing facilities and transmission additions in the PNW are being planned by the current owners to upgrade the capacity of the northern portion of the AC Intertie to the same 4800 MW transmission capability planned for the southern portion.

BPA, PGE, and PP&L will share the costs of increasing the capability of the AC Intertie in the PNW by 1600 MW as set forth in the respective BPA-PGE and BPA-PP&L Intertie Agreements. The two Intertie Agreements settled disputes between the current owners and, among other things, resulted in a negotiated agreement as to how to share costs for the increase in AC Intertie capability. Each company's capacity rights based on ownership are also defined.

On June 22, 1987, BPA received a letter from the Chairman of the U.S. House of Representatives Committee on Energy and Commerce requesting information regarding non-Federal utility participation in the Third AC Intertie. BPA was asked to provide a study on non-Federal participation.

BPA released its "Final Study of Non-Federal Participation in the Northern Portion of the Third AC Intertie" (Study) in March 1988. The Study described the options BPA had identified and examined their consequences in light of

various criteria. BPA did not make a recommendation in the Study regarding whether it would offer non-Federal participation or what type of non-Federal participation might be offered.

In December 1988, BPA released its Proposal. In the Proposal, BPA reserved its share of the first 800 MW increase for its own use. BPA proposed to offer its share of the second 800 MW increase (725 MW) for use by PNW non-Federal scheduling utilities. BPA would retain physical ownership of facilities and decisionmaking authority over the operation, maintenance, planning, and construction of facilities. BPA would offer contracts to PNW scheduling utilities for use of shares of the Third AC Intertie through the year 2016. Participants would make an estimated payment upon execution of participation contracts, rather than through annual payments over the term of the participation contracts.

The pricing methodology included in the Proposal was based on BPA's cost of the second 8300 MW of the Third AC Intertie Project (see § IV, ¶A, *infra*) plus the depreciated replacement cost of existing facilities (separately owned by BPA or PP&L) required for operation of the Third AC Intertie. The costs included land, BPA's normal allocation of corporate overhead, interest during construction (IDC) (which can also be referred to as Allowance for Funds Used During Construction (AFUDC) on new facilities, and indirect expenses. An adjustment was to be made, using depreciated replacement cost for both existing facilities and the Third AC Intertie Project, to account for the fact that participants' contract rights would extend through 2016 rather than for the life of the facilities.

Since publication of the Proposal, BPA has conducted further review and analysis and made two revisions to the cost basis for the proposed pricing methodology. First, instead of using depreciated replacement cost as the basis for pricing, BPA now proposes to use book value for pricing existing facilities and making the adjustment for contract rights extending through 2016. Book value represents capitalized investment cost less accumulated depreciation. Second, the Proposal had included IDC as a component of the pricing methodology. BPA uses AFUDC in estimating the interest on funds used during the construction period of capital facilities. Consequently, in determining the total costs of the facilities, the pricing methodology will use the term AFUDC rather than IDC.

Participants would make an estimated payment upon execution of participation contracts. When the Third AC Intertie

project is completed and all costs accounted for, an adjustment will be made to account for actual costs and energization date as well as timing of the payment.

BPA's proposed pricing methodology does not include costs associated with operation and maintenance, general plant, or replacements and renewals. Those costs would be paid annually by participants. Payment provisions and the formula for calculating the annual payments would be included in the participation contracts and are not part of the rate for which BPA is seeking FERC approval.

The testimony supporting the proposed Third AC Intertie non-Federal participation transmission rate will be available on December 22, 1989, at BPA's Public Information Center, BPA Headquarters Building, first floor, 905 NE 11th, Portland, Oregon. The testimony may also be requested by phone or in writing from BPA's Public Involvement office and will be available at the Prehearing Conference.

Persons seeking to become parties should not wait until the prehearing conference to obtain copies of the testimony. Rather, parties should obtain the testimony earlier so they will be prepared for the technical session on January 3, 1990. At the technical session, BPA staff will be available to informally clarify information in the testimony.

To request the testimony by telephone, call BPA's document request line: 800-841-5867 for Oregon; 800-624-9495 for Washington, Idaho, Montana, California, Wyoming, Utah, and Nevada. Other callers should use 503-230-3478.

#### II. Relevant Statutory Provisions

Section 7 of the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), 16 U.S.C. 839e, contains a number of general directives that the BPA Administrator must consider in establishing rates for the transmission of non-Federal power. In particular, section 7(a)(1), 16 U.S.C. 839e(a)(1), provides that

[s]uch rates shall be established and, as appropriate, revised to recover, in accordance with sound business principles, the costs associated with the acquisition, conservation, and transmission of electric power, including the amortization of the Federal investment in the Federal Columbia River Power System (including irrigation costs required to be repaid out of power revenues) over a reasonable period of years and the other costs and expenses incurred by the Administrator pursuant to this act and other provisions of law. Such rates shall be established in accordance with sections 9 and 10 of the Federal Columbia River



Transmission System Act (16 U.S.C. § 838), section 5 of the Flood Control Act of 1944, and the provisions of this Act.

Rates established by BPA are effective when approved by FERC. 16 U.S.C. § 839e.

### III. Procedures Governing Rate Adjustments and Public Participation

Section 7(i) of the Northwest Power Act, 16 U.S.C. 839e(i), requires that rates be established according to certain procedures. These procedures include, among other things, issuance of a **Federal Register** notice announcing the proposed rates; one or more hearings; the opportunity to submit written views, supporting information, questions, and arguments; and a decision by the Administrator based on the record developed during the hearing process. This proceeding will be governed by BPA's "Procedures Governing Bonneville Power Administration Rate Hearings," 51 FR 7611 (1986), which implements the statutory requirements.

The hearing will be conducted according to the rule for general rate proceedings, § 1010.9 of BPA's "Procedures Governing Bonneville Power Administration Rate Hearings." BPA's procedures provide for publication of a notice of the proposed rates, a prehearing conference, the opportunity for hearing, receipt of written comments, preparation of decisional documents, a decision, and the transmittal of the decision with supporting documentation to FERC.

BPA distinguishes between "participants in" and "parties to" the hearings. Apart from the formal hearing process, BPA will receive comments, views, opinions, and information from "participants," who are defined in the procedures as persons who may submit comments without being subject to the duties of and having the privileges of parties. Participants' written and oral comments will be made part of the official record of the case and considered by the Administrator. Participants are not entitled to participate in the prehearing conference (except to the extent that their petitions for party status may be ruled on); may not cross examine parties' witnesses, seek discovery, or serve or be served with documents; and are not subject to the same procedural requirements as parties.

Written comments by participants will be included in the record if they are submitted on or before March 14, 1990. Participants' written views, supporting information, questions, and arguments should be submitted to BPA's Public Involvement Office.

The second category of interest is that of a "party" as defined in §§ 1010.2 and 1010.4 of the "Procedures Governing Bonneville Power Administration Rate Hearings," 51 FR 7611 (1986). Parties may participate in any aspect of the hearing process.

Persons wishing to become a formal party to BPA's rate proceeding must notify BPA in writing of their request. Petitions to intervene shall state the name and address of the person requesting party status and the person's interests in the outcome of the hearing. Petitioners may designate no more than two representatives upon whom service of documents will be made. BPA customers and customer groups whose rates are subject to revision in the hearing will be granted intervention, based on petitions filed in conformity with § 1010.4. Other petitioners must explain their interests in sufficient detail to permit the Hearing Officer to determine whether they have a relevant interest in the hearing. Any opposition to a petition to intervene must be filed and served at least 24 hours before the January 3, 1990, prehearing conference. All timely applications will be ruled on by the Hearing Officer. Late interventions are strongly disfavored. Opposition to an untimely petition to intervene shall be filed and served within 2 days after service of the petition. Intervention petitions will be available for inspection in BPA's Public Information Center, first floor, 905 NE. 11th, Portland, Oregon.

The record will include, among other things, the transcripts of any hearings, written material submitted by the participants, and evidence accepted into the record by the Hearing Officer. The Hearing Officer then will review the record, supplement it if necessary, and certify the record to the Administrator for decision.

The Administrator will develop the final proposed transmission rate based on the entire record. The basis for the final proposed transmission rate will be expressed in the Administrator's Record of Decision (ROD). The Administrator will serve copies of the ROD on all parties and will file the final proposed rate, together with the record, with FERC for confirmation and approval.

### IV. Third AC Intertie Non-Federal Participation Transmission Rate

The proposed participation rate will be based on BPA's costs of facilities associated with the second 800-MW increment of the Third AC Intertie Project. First, BPA's costs of the new facilities and the book value of existing facilities required for the second 800-MW increment of the Third AC Intertie

are determined. Second, the AFUDC associated with the costs of the new facilities is added. Then, in computing the rate, an adjustment will be made to compensate for a contract term less than the life of the facilities.

In order to determine which costs are appropriately assigned to the first and second 800 MW of the Third Intertie Project, studies were performed to determine which facilities are needed for the AC Intertie to operate reliably at 4000 MW. Costs were assigned to the first 800 MW on the basis of which facilities were needed for reliable operation at a transfer level of 4000 MW from the PNW to the PSW. The remainder of the costs were assigned to the second 800 MW. (see § V, ¶ B)

Following is a more detailed discussion of the components of the pricing methodology.

#### A. New Facilities

The new facilities associated with the Third AC Intertie Project are made up of two separate items: (1) Third AC Intertie System Reinforcement (Reinforcement) (which includes modifications to the existing AC Intertie plus a new substation (Captain Jack) and related facilities), and (2) the Alvey-Meridian Transmission Line and related facilities. Costs associated with the Reinforcement are assigned to both the first and second 800-MW increments of the Third AC Intertie. These reinforcements will be made to the existing AC Intertie and to existing main grid facilities that will become part of the Third AC Intertie. A portion of the Reinforcement costs are assigned to the second 800 MW.

All of BPA's costs associated with the new Alvey-Meridian Transmission Line are assigned to the second 800 MW. Alvey-Meridian will be jointly owned by BPA and PP&L; BPA's portion of the line will be dedicated solely to the Third AC Intertie, while PP&L's portion will be used to serve its obligations in southern Oregon and northern California.

#### B. Existing Support Facilities

A portion of two existing BPA transmission lines and associated substations (now dedicated to serve BPA loads and wheeling obligations in the Willamette Valley) and a portion of an existing PP&L transmission line and associated substation facilities (now dedicated to serve PP&L loads in southern Oregon and northern California) will become part of the Third AC Intertie upon completion of the Third AC Intertie Project. A portion of the book value of these facilities is included in BPA's pricing methodology for participation.



### C. Allowance for Funds Used During Construction

The costs used in the proposed pricing methodology include AFUDC. For purposes of calculating the estimated payment, costs will include an estimate for AFUDC. When the Third AC Intertie Project is completed and all costs accounted for, AFUDC will be calculated and capitalized consistent with FERC requirements.

### D. 2016 Adjustment

If participation is offered, the contract rights will extend through calendar year 2016 (see § V, ¶ A, *infra*). BPA proposes to make an adjustment to compensate for a contract term less than the life of the facilities involved by deducting from the costs the present value of the estimated remaining book value of the New Facilities and the Existing Support Facilities associated with the second 800 MW at the end of 2016. The remaining book value is discounted back to the year of completion (currently expected to be 1993) using BPA's borrowing rate.

### E. Application of Proposed Pricing Methodology

For purposes of estimating the price that would result from applying the proposed pricing methodology, BPA assumes that participants' payments would not be made until the Third AC Intertie Project is complete (currently estimated to be early to mid-1993). Participants' payments would, however, be made to BPA when participation contracts are signed (currently estimated to be late 1991 or early 1992, if BPA decides to offer participation). BPA would provide an adjustment to the price to reflect the earlier receipt of the payment.

When the Third AC Intertie Project is completed and all costs accounted for, an adjustment would be made to reflect BPA's actual costs, the project energization date, and the timing of the original payments. Participants would then either receive a refund from BPA or make an additional payment to BPA.

Using BPA's most recent program planning estimates of the cost of the Third AC Intertie Project, the estimated price for participation is \$252/kW (in 1993 dollars). This estimate is provided to show how the pricing methodology would be applied and to give potential participants information to assist them in determining whether they want to participate in the Third AC Intertie should BPA offer participation. The estimate follows:

### THIRD AC INTERTIE PARTICIPATION ESTIMATED PRICE<sup>1</sup>

[1993 \$]

Cost item	Cost (Millions of \$)	Price per kW <sup>2</sup>
New Facilities.....	\$199	
New Facilities needed for first 800 MW of 1600 MW....	-62	
Cost of Second 800 MW.....	137	
AFUDC on Second 800 MW.....	23	
Existing Support Facilities.....	+31	
Subtotal.....	191	
2016 Adjustment .....	-8	
Total Price .....	183	\$252

<sup>1</sup> Based on mid-1989 program planning levels.  
<sup>2</sup> The Price per kW is derived by dividing the Total Price by 275 MW.

### V. Major Issues

#### A. Term of Rate

BPA proposes to provide participants with contract rights (*i.e.*, the rate would be effective) through the year 2016, the year that certain BPA-PP&L agreements terminate, if BPA decides to offer participation. The agreements affect the AC Intertie, and BPA is uncertain of its rights to use PP&L facilities for AC Intertie purposes after that time. New agreements to extend operation of the Third AC Intertie after 2016 will have to be negotiated with PP&L.

Also contingent on offering participation through 2016, BPA may offer participants a limited, conditional option to participate after 2016. The rate for post-2016 participation would be determined through a rate proceeding at that time.

#### B. Which Facilities are Appropriately Included in Pricing Methodology

Planned transmission additions to facilities owned by BPA, PP&L, and PGE will upgrade the AC Intertie from 3200 MW to 4800 MW. Existing Intertie facilities can be upgraded to 4000 MW by making reinforcements at a relatively lower cost than the remainder of the upgrade because of previous investments made by the current owners. The second 800 MW requires additional reinforcements plus the Alvey-Meridian transmission line and associated facilities. Therefore, BPA's proposed pricing methodology for participation is based on its costs associated with the second 800 MW of the 1600 MW Third AC Intertie Project.

In addition to the cost of new facilities specifically required for the second 800 MW of the Third AC Intertie (see § IV, ¶ A, *supra*), BPA's proposed pricing methodology includes the book value of existing transmission and substation

facilities which will become part of the Third AC Intertie upon its completion (see § IV, ¶ B, *supra*). The existing facilities are owned by either BPA or PP&L.

Of the BPA-owned facilities, those that would be assigned to the Third AC Intertie include one-half of one circuit of a double circuit 500-kV transmission line from Buckley to Marion, one-half of a single circuit 500-kV transmission line from Marion to Alvey, and one-half of the associated terminals at the Buckley and Marion substations. These facilities are currently considered part of BPA's main grid transmission system. The book value of these facilities, which are required to achieve the increase from 4000 MW to 4800 MW, is included in calculating BPA's rate of participation.

A portion of the existing PP&L transmission line and associated substation facilities from Meridian to Malin (specifically from Meridian to BPA's new Captain Jack substation) will be dedicated to BPA's use as part of the Third AC Intertie. BPA received the right to use this transmission path as part of negotiations with PP&L which included Intertie rights. For purposes of pricing the portion of the PP&L transmission line from Meridian to the Captain Jack substation, BPA proposes to use PP&L's book value associated with that segment of the transmission line and associated substation facilities.

### C. Cost Basis for Proposed Pricing Methodology

BPA proposes to price Existing Support Facilities which will become part of the Third AC Intertie using the book value of those facilities. Similarly, BPA proposes to make the adjustment to account for contract rights that extend through 2016 using the estimated remaining book value of the New and Existing Support Facilities (see § IV, ¶ C, *supra*).

### VI. Proposed Third AC Intertie Non-Federal Participation Rate Schedule

#### Section I. Availability

This schedule shall apply to all agreements which provide for non-Federal participation in BPA's portion of the second 800 MW of the Third AC Intertie.

#### Section II. Rate

The one-time payment, with an adjustment to be made after completion of the Third AC Intertie and after all costs have been accounted for, shall be made upon execution of participation contracts. The formula for the participation payment is shown below.



$$\frac{A-B+C+D-E}{725 \text{ MW}} = \text{Participation Price in } \$/\text{kW}$$

Participation Price in \$/kW  $\times$  number of kW contracted for by participant = Participants payment to BPA

### Section III. Definitions

A. A=BPA's cost of new facilities for the Third AC Intertie, which will increase the transfer capability of the PNW-PSW Intertie by approximately 1600 MW, is the construction costs (including land, BPA's normal allocation of corporate overhead, and indirect expenses) of the facilities associated with the Third AC Intertie System Reinforcement and the Alvey-Meridian Transmission Line (referred to jointly as the Third AC Intertie Project), including the following: new Captain Jack substation and related facilities; a 500-kV single-circuit transmission line from the Captain Jack substation to the California-Oregon border; other required AC Intertie improvements; 50 percent of the construction costs associated with PP&L's proposed Alvey-Meridian 500-kV single-circuit transmission line and related facilities upon BPA's exercising its option to acquire 50 percent of the incremental capacity of that transmission line; and BPA staff and related costs for all work pertaining to the preparation and review of the Third AC Intertie non-Federal Participation Proposal, Third AC Intertie non-Federal participation rate case, contract negotiations, and environmental impact statement (including public involvement activities).

B. B=BPA's cost of new facilities needed for the first 800 MW increment of the 1600 MW Third AC Intertie Project is a portion of the construction costs (including land, BPA's normal allocation of overhead, and indirect expenses) associated with the new Captain Jack substation and related facilities; a 500-kV single-circuit transmission line from the Captain Jack substation to the California-Oregon border; and other required AC Intertie improvements.

C. C=AFUDC constitutes interest on the funds used for the Third AC Intertie Project while it is under construction. AFUDC is calculated and capitalized consistent with FERC requirements. The AFUDC is that amount capitalized on the second 800 MW increment of the 1600 MW Third AC Intertie Project, or A-B.

D. D=Book value of existing BPA or PP&L support facilities needed for the second 800-MW increment of the 1600

MW Third AC Intertie is made up of the book value of one-half of one circuit of BPA's Buckley-Marion double-circuit 500-kV transmission line; the book value of one-half of a single circuit of BPA's Marion-Alvey transmission line; one-half of the associated terminals at BPA's Buckley and Marion substations; the book value of a portion of PP&L's single-circuit 500-kV Meridian-Malin transmission line between Meridian and BPA's Captain Jack substation; and the book value of a portion of PP&L's Meridian substation facilities.

E. E=Adjustment for contract termination at the end of 2016, which is the remaining book value at the end of 2016 of the facilities needed for the second 800 MW increment of the Third AC Intertie, consisting of the new facilities determined in A-B plus the AFUDC calculated in C and the existing support facilities in D, discounted at BPA's borrowing rate to the completion of the Third AC Intertie, currently planned for 1993.

F. 725 MW=BPA's share of the second 800 MW of the Third AC Intertie.

Issued in Portland, Oregon, on November 4, 1989.

James J. Jura,

Administrator.

[FR Doc. 89-27479 Filed 11-21-89; 8:45 am]

BILLING CODE 6450-01-M

### Federal Energy Regulatory Commission

[Docket Nos. ES90-9-000, et al.]

#### Centel Corp.; et al.; Electric Rate, Small Power Production, and Interlocking Directorate Filings

Take notice that the following filings have been made with the Commission:

##### 1. Centel Corp.;

[Docket No. ES90-9-000]

November 15, 1989.

Take notice that on November 13, 1989, Centel Corporation ("Applicant") filed an application with the Federal Energy Regulatory Commission ("Commission"), seeking authority pursuant to Section 204 of the Federal Power Act, to issue up to 300,000 shares of its common stock, \$2.50 par value, in connection with its Seventeenth Employee Stock Purchase Program.

Comment date: December 4, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### 2. United States Department of Energy—Alaska Power Administration

[Docket No. EF89-1011-000]

November 15, 1989.

Take notice that on September 29, the United States Department of Energy, acting on behalf of the Alaska Power Administration, tendered for filing an extension, on a temporary basis, of the existing rates for the Eklutna Project for a period of up to 12 months beginning October 1, 1989.

Comment date: November 28, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### 3. Centel Corp.

[Docket No. ER89-676-000]

November 16, 1989.

Take notice that on November 7, 1989, Centel Corporation (Centel) tendered for filing a Notice of Cancellation of Rate Schedule 88-MWh-5, FERC No. 88 Supplement 13 between Centel and the City of Coats.

Comment date: November 30, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### 4. Florida Power Corp.

[Docket No. ER89-627-000]

November 16, 1989.

Take notice that on November 13, 1989, Florida Power Corporation tendered for filing a supplement to its August 30, 1989 filing in this docket, which involves rate changes for the City of Wauchula, the Town of Havana, the City of Bartow, and the City of Newberry, all located in Florida. This supplement contains Period I data for the 12-month period ending August 31, 1989.

According to Florida Power, the filing has been served on each of the affected utilities and the Florida Public Service Commission.

Comment date: November 30, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### 5. Orange and Rockland Utilities, Inc.

[Docket No. ER90-64-000]

November 16, 1989.

Take notice that Orange and Rockland Utilities, Inc. (Orange and Rockland) November 13, 1989, tendered for filing as a rate schedule an executed agreement dated October 1, 1989, between Orange and Rockland and Central Hudson Electric and Gas Corporation for the sale of interruptible power and energy by and between Orange and Rockland and New York State Electric and Gas Corporation.



The rate schedule provides for an economy reservation charge not to exceed \$15,000/MWH scheduled and an energy charge equal to the seller's marginal system cost.

Orange and Rockland requests waiver of the notice requirements of Section 35.3 of the Commission's Regulations so that the proposed rate schedule can be made effective October 1, 1989 in accordance with the anticipated utilization by the parties.

Orange and Rockland states that a copy of its filing was served on Central Hudson Electric and Gas Corporation.

*Comment date:* November 30, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### 6. Southwestern Public Service Co.

[Docket No. ER90-63-000]

November 16, 1989.

Take notice that Southwestern Public Service Company (Southwestern) on November 9, 1989, tendered for filing proposed changes in its rates for services to four full requirement customers, Central Valley Electric Cooperative, Inc., Farmers' Electric Cooperative, Inc. of New Mexico, Lea County Electric Cooperative, Inc., and Roosevelt County Electric Cooperative, Inc.

The proposed change results in a 10 percent decrease in overall revenues or a 19 percent decrease in base rate revenues for these four customers from the currently effective base rates. The proposed decrease has obtained requisite agreement from the four customers. Southwestern has offered the same decrease to its other full requirements customers. The decrease is proposed to become effective January 1, 1990. The purpose of the decrease is to reflect in the customers' base rates Southwestern's lower costs to provide service to its customers as of January 1, 1990. These lower costs of service result primarily from (1) the termination on December 31, 1989 of Southwestern's purchase of surplus energy from Public Service Company of New Mexico of which a portion of the current reservation fee is included in the customers' existing base rates, (2) reduced capital costs, and (3) reduced federal income taxes arising from the Tax Reform Act of 1986.

Copies of the filing were served upon the four customers and the New Mexico Public Service Commission.

*Comment date:* November 30, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### 7. Commonwealth Edison Co.

[Docket Nos. ER89-557-000, ER89-594-000, ER89-632-000.]

November 16, 1989.

By letters dated July 18, August 7, and August 30, 1989, Commonwealth Edison Company (Edison) submitted for filing (1) Letter Agreements with Madison Gas and Electric Company (MG&E) and Wisconsin Public Service Corporation (WPSC) providing for the sale of Short Term Power and General Purpose Energy and (2) amendments to Edison's Interconnection Agreements with Wisconsin Electric Power Company (WEPC) and Wisconsin Power and Light Company (WP&L) providing for revised service schedules for Limited Term Power, Short Term Power, Emergency Energy, Economy Energy, and General Purpose Energy. Take notice that on November 13, 1989, Edison, MG&E, WEPC, and WP&L in response to request from Commission Staff, submitted additional cost and operational data to support their proposed rates as modified.

*Comment date:* November 30, 1989, in accordance with Standard Paragraph E at the end of this notice.

#### Standard Paragraph

E. Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). All such motions or protests should be filed on or before the comment date. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 89-27389 Filed 11-21-89; 8:45 am]

BILLING CODE 6717-01-M

[Docket Nos. CP90-230-000, et al.]

#### Algonquin Gas Transmittion Company, et al.; Natural gas certificate filings

Take notice that the following filings have been made with the Commission:

#### 1. Algonquin Gas Transmission

[Docket No. CP90-230-000]

November 15, 1989.

Take notice that on November 9, 1989, Algonquin Gas Transmission Company (Algonquin), 1284 Soldiers Field Road, Boston, Massachusetts 02135 filed in Docket No. CP90-230-000 an application pursuant to § 157.205 (18 CFR 157.205) of the Commission's Regulations under the Natural Gas Act for authorization to provide an interruptible transportation service for Phibro Distributors Corporation (Phibro), a marketer of natural gas, pursuant to Algonquin's blanket transportation certificate issued in Docket No. CP89-948-900 on May 19, 1989, all as more fully set forth in the application which is on file with the Commission and open to public inspection.

Algonquin proposes, pursuant to an agreement dated August 18, 1989, to transport for Phibro, on an interruptible basis, up to 50,000 MMBtu of natural gas per peak day. Algonquin states that the estimated daily and annual quantities of gas would be 50,000 MMBtu and 18,250,000 MMBtu of gas equivalent, respectively. Algonquin states it will receive the gas at various existing points in the States of New York, New Jersey, Connecticut and Massachusetts and redeliver the gas to Orange and Rockland Utilities, Inc. in Rockland County, New York. Algonquin indicates that the transportation service under the 120-day automatic authorization of § 284.223 of the Commission's Regulations commenced on September 17, 1989, as reported to the Commission in Docket No. ST90-223-000.

*Comment date:* January 2, 1990, in accordance with Standard Paragraph G at the end of this notice.

#### 2. Algonquin Gas Transmission Co.

[Docket No. CP90-233-000]

November 15, 1989.

Take notice that on November 9, 1989, Algonquin Gas Transmission Company (Algonquin), 1284 Soldiers Field Road, Boston, Massachusetts 02135, filed a request with the Commission in Docket No. CP90-233-000 pursuant to § 157.205 of the Commission's Regulations under the Natural Gas Act (NGA) for authorization to transport natural gas for Total Minatome Corporation (Total Minatome), a natural gas marketer and shipper, under Algonquin's blanket certificate issued in Docket No. CP89-948-000 pursuant to section 7 of the NGA, all as more fully set forth in the request which is open to public inspection.



Algonquin proposes an interruptible transportation service for Total Manatome of up to 73,000 MMBtu equivalent of natural gas on peak and average days, and 26,845,000 MMBtu equivalent per year. Algonquin states that it would receive gas for Total Manatome's account at various existing Massachusetts and New Jersey receipt points on its pipeline system and deliver the gas, less fuel and unaccounted line loss, to the Board of Public Utility Commissioners for Norwich, New London County, Connecticut. Algonquin states that it commenced transporting natural gas for Total Manatome on September 9, 1989, under § 283.223(a) of the Regulations as reported in Docket No. ST90-110.

*Comment date:* January 2, 1990, in accordance with Standard Paragraph G at the end of this notice.

### 3. Algonquin Gas Transmission Co.

[Docket No. CP87-554-003]

November 15, 1989.

Take notice that on November 9, 1989, Algonquin Gas Transmission Company (Applicant), 1284 Soldiers Field Road, Boston, Massachusetts 02135, filed in Docket No. CP87-554-003, a petition to amend the certificate of public convenience and necessity, pursuant to section 7(c) of the Natural Gas Act, issued on June 7, 1989, in this proceeding to provide: (1) A limited term reduced level of firm transportation service authorized by the June 7, 1989, Order; (2) a best efforts, transportation service in excess of the reduced firm maximum daily transportation quantity (MDTQ) requested up to the MDTQ authorized; and (3) an interim firm service to Valley Gas Company (Valley Gas), all as more fully set forth in the petition to amend which is on file with the Commission and open to public inspection.

Applicant states that by *Order Issuing Certificates* issued June 7, 1989<sup>1</sup> (Order), Applicant was authorized in Docket No. CP87-554-001 to provide firm transportation service up to 8,408 MMBtu equivalent per day in 1989, under Rate Schedule PSS-T, to: Bristol and Warren Gas Company (Bristol and Warren); Central Hudson Gas & Electric Corporation (Central Hudson); Colonial Gas Company (Colonial); Connecticut Light and Power Company (CL&P)<sup>2</sup>; South County Gas Company

(South County); and Valley Gas, and to construct and operate 4.3 miles of 12-, 16-, and 20-inch pipeline loops, located in Massachusetts and Rhode Island, and a meter and regulator station at Cumberland, Rhode Island.

Applicant states that it has pursued obtaining permits and easement rights to construct the facilities authorized by the Order. Applicant further states that certain facilities have been constructed or are currently being constructed. However, Applicant submits that it has been unable to obtain wetland determinations related to 0.9 miles of 16-inch loop of Applicant's G-4 system and the Cumberland Meter Station located in the State of Rhode Island, and has not obtained right-of-way for 1.2 miles of 12-inch loop of Applicant's I-4 system in Massachusetts. Applicant further submits that because of these delays in obtaining access for construction activities, it would not be able to commence full service as originally contemplated by November 15, 1989.

Applicant proposes to utilize the Rate Schedule PSS-T facilities scheduled to be completed by December 15, 1989 to render a reduced firm service in the amount of 6,726 MMBtu equivalent per day to its Rate Schedule PSS-T customers and best efforts service above that level up to the full authorized quantity until the remaining facilities are placed in service. The proposed interim and authorized MDTQ amounts are as follows:

Customer	Rate schedule PSS-T MDTQ in MMBtu equivalent per day	
	Interim	Authorized
Bristol and Warren .....	650	813
Central Hudson .....	3,200	4,000
Colonial .....	1,778	2,222
South County .....	198	248
Valley Gas .....	800	1,000
Yankee Gas .....	100	125
Total .....	6,726	8,408

Applicant requests authority to deliver quantities on behalf of Valley Gas to Providence Gas Company (Providence) if the Cumberland Meter Station being constructed to serve Valley Gas is not in service by December 15, 1989. Applicant proposes to provide those deliveries at the existing East Providence, Rhode Island delivery point to Providence which in turn would redeliver natural gas to Valley Gas at an existing interconnection between Providence and Valley Gas.

Applicant states that it has attached to this application a copy of its tariff

filing to implement Rate Schedule PSS-T which was filed on November 9, 1989 in Docket No. RP90-40-000. Applicant further states that it has requested within Docket No. RP90-40-000 an effective date of December 15, 1989 which would coincide with the scheduled in-service date for facilities.

Applicant proposes to charge the following interim rates:

Rate component	Interim rate \$ per MMBtu	Initial rate \$ per MMBtu
D-1 .....	2.905	4.4513
D-2 .....	0.3486	0.6657
Commodity .....	0.6066	1.1868
Authorized Overrun .....	1.0507	1.9988

Applicant indicates that the interim rates to provide the reduced level of service were based upon an investment of \$4,097,000 which is the estimated cost of facilities scheduled to be complete December 15, 1989. Applicant further indicates that the rates calculated utilized factors and the methodology consistent with the Commission's Order of June 7, 1989. Applicant states that, upon completion of the remaining facilities, it would charge the initial rate specified in the Order or the rate established in Applicant's rate case in Docket No. RP90-22.

*Comment date:* November 27, 1989, in accordance with the first subparagraph of Standard Paragraph F at the end of this notice.

### 4. Texas Eastern Transmission Corp.

[Docket No. CP88-180-002]

November 16, 1989.

Take notice that on October 31, 1989, Texas Eastern Transmission Corporation (Applicant), Post Office Box 2521, Houston, Texas 77252, filed in Docket No. CP88-180-002 an application pursuant to sections 7(b) and (c) of the Natural Gas Act, requesting a certificate of public convenience and necessity, authorizing Applicant to render a firm sales and transportation service and to construct and operate facilities, which amended application reflects contractual and procedural modifications to the PennEast CDS Project, all as more fully set forth in the amendment, which is on file with the Commission and open to public inspection.

Applicant states that the original CDS Project was comprised of a series of applications by Applicant, PennEast Gas Service Company (PennEast) and Algonquin Gas Transmission Company (Algonquin), which sought authorization to implement a comprehensive project to

<sup>1</sup> Texas Eastern Transmission Corporation, et al., Docket No. CP87-5-003, et al., *Order Issuing Certificates*.

<sup>2</sup> On July 1, 1989, Yankee Gas Service Company (Yankee Gas) assumed operation of CL&P's gas business.



reduce and restructure Applicant's Zone C firm sales contract commitments to CNG Transmission Corporation (CNG) and Columbia Gas Transmission Corporation (Columbia) and utilize the gas supply made available to serve the New York and New England area natural gas markets. Applicant submits that its original application in this proceeding sought authorization to restructure Applicant's existing sales obligation to CNG and Columbia, to sell quantities of natural gas to PennEast, and to provide to CNG, Columbia and PennEast a firm transportation service.

Applicant further submits that PennEast by its application in Docket No. CP88-181-000 sought authorization to sell and transport such gas to existing customers of Applicant and Algonquin while Algonquin, by its application in Docket No. CP88-185-000 sought authorization to render a transportation service for its customers of their gas purchased from or transported by PennEast.

Applicant states that since the filing of the original CDS Project applications, certain events have transpired which require contractual and procedural modifications of the CDS Project applications.

Applicant indicates that, by Order issued July 27, 1988, the Commission denied a certificate to PennEast for certain seasonal sales services but did authorize CNG and Applicant to "unbundle" and separately provide the sales and transportation services. Applicant further indicates that, in recognition of the Commission's position on the PennEast concept, Applicant and CNG have previously revised the structure of several other PennEast projects in order to comport with the policy set forth in the Commission's July 27, 1988 Order, and that accordingly,

Applicant considers it appropriate to modify the contractual structure of the CDS Project as well.

Applicant states that, subsequent to filing the original application, Applicant and Columbia entered into a new precedent agreement dated May 26, 1988, to include the 75,000 dt equivalent per day sales reduction to Columbia, proposed in the original application, as part of Applicant's customer May 27, 1988, settlement offer in Docket No. RP85-177, *et al.*

Applicant further states that, by its September 29, 1988 Order, the Commission approved without modification the substantive provisions of the May 27 Settlement, and that therefore, the reduction of Columbia's 75,000 dt per day entitlement was accomplished and the original request for abandonment in this proceeding was moot.

Applicant also states that in conjunction with the original PennEast CDS Project, CNG and Applicant agreed pursuant to a precedent agreement dated January 14, 1988, contained in the original application, that CNG's contractual entitlement pursuant to Rate Schedule DCQ or CD-1, as appropriate, to purchase gas in Applicant's Rate Zone C would be terminated in part and permanently converted in part to firm transportation service under Applicant's proposed Rate Schedule FTS-3 and in part to a firm sales service under Applicant's proposed Rate Schedule PLD. Applicant further states that in conjunction with the settlement of Applicant's Docket No. RP85-177, *et al.*, CNG and Applicant agreed to convert *inter alia* the existing firm sales service under Applicant's Rate Schedule DCQ to a new sales service under Applicant's Rate Schedule CD-1 for a corresponding level of firm sales service, and a new

firm transportation service under Rate Schedule FT-1. Applicant indicates that, to reflect the restructured CDS Project and the RP85-177 settlement and pursuant to a precedent agreement dated October 27, 1989, CNG and Applicant have restated the January 14, 1988 precedent agreement to reflect that upon authorization of its application, Applicant and CNG would enter into new CD-1 and FT-1 service agreements which would reflect a reduction of 75,000 dt equivalent per day and 37,000 dt equivalent per day, respectively.

Applicant states that in light of the above changed circumstances, Applicant would adopt the CDS Project in concept and, upon authorization, would render the firm long-term sale directly to the CDS Project customers of the 150,000 dt equivalent per day available from the Columbia and CNG reduction. Applicant further states that it would propose to sell on an interim best efforts basis the 75,000 dt equivalent per day now available from the Columbia reduction, and that the amended application incorporates procedural and contractual revisions together with proposed facilities necessary to implement Applicant's adoption of the PennEast CDS Project, now designated the CD-1 Adjustment Program.

Applicant requests authorization to render a firm sale for resale service to the indicated Buyers pursuant to Rate Schedules CD-1 and SGS. The following Buyers have subscribed to the proposed CD-1 and SGS services by executing precedent agreements which provide for firm sales service to commence on November 1, 1990. The quantities of natural gas to be rendered by the proposed sales service are:

Buyer	Daily contract quantity (DT/D)	Annual contract quantity (DT)	Maximum daily standby quantity (DT/D)	Maximum yearly standby quantity (DT)
Rate Schedule CD-1:				
Boston Gas Co .....	29,492	10,764,580	14,746	5,382,290
The Brooklyn Union Gas Co .....	4,213	1,537,745	2,106	768,872
Cairo, Illinois .....	253	92,345	126	46,172
Central Hudson Gas & Electric Corp .....	5,056	1,845,440	2,528	922,720
Chambersburg, PA .....	54	19,710	27	9,855
Fall River Gas Co .....	421	153,665	210	76,832
Long Island Lighting Co .....	6,320	2,306,800	3,160	1,153,400
Town of Middleborough, MA .....	337	123,005	168	61,502
Public Service Electric & Gas Co .....	52,664	19,222,360	26,332	9,611,180
Southern Connecticut Gas Co .....	16,853	6,151,345	8,426	3,075,672
Yankee Gas Services .....	3,118	1,138,070	1,559	569,035
Uncommitted .....	330,755	11,225,575	15,377	5,612,787
Rate Schedule SGS:				
Batesville, IN .....	253	92,345		
Smyrna, TN .....	211	77,015		
Total .....	150,000	54,750,000	74,765	27,290,317



Applicant states that Connecticut Light and Power Company, an original Buyer, has assigned its interest to Yankee Gas Services, and Huntingburg, IN has assigned its interest to Batesville, IN. Applicant further states that Connecticut Natural Gas Co. and New Jersey Natural Gas Co. elected not to execute precedent agreements for continued participation in the restructured project. It is indicated that, inasmuch as original CDS service requests substantially exceeded the 150,000 dt per day project volume, Applicant anticipates reallocating the uncommitted volume to the other customers on a pro rata basis.

Applicant proposes, pursuant to its Rate Schedule CD-1, to sell and cause to deliver natural gas to, or for the account of, Buyers at the delivery points to be specified in an executed service agreement.

Applicant requests authorization to render interim best efforts sales to Buyers pending completion of facilities for firm service. It is indicated that, commencing on the issuance of authorization and the execution of the CD-1 or SGS service agreements and continuing until the construction of all necessary facilities and commencement of firm sales, Applicant would use its best efforts to sell up to 75,000 dt

equivalent per day to Buyers. Applicant submits that, for the interim sales to Buyers, Applicant would charge its Rate Schedule CD-1 interim rate.

Applicant requests authorization to render a long-term firm transportation service to the Buyers in accordance with Applicant's Rate Schedule FT-1. Applicant proposes, under Rate Schedule FT-1, to transport, to the extent a customer is not purchasing standby sales under Rate Schedule CD-1, on a daily basis natural gas up to the following quantities:

Buyer	Contract demand quantity (DTH/D)	Annual transp. quantity (DTH)	Maximum daily standby quantity (DTH/D)
Boston Gas Co.	14,746	5,382,290	14,746
The Brooklyn Union Gas Co.	2,106	768,872	2,106
Cairo, Illinois	126	46,172	126
Central Hudson Gas & Electric Corp.	2,528	922,720	2,528
Chambersburg, PA	27	9,855	27
Fall River Gas Co.	210	76,832	210
Long Island Lighting Co.	3,160	1,153,400	3,160
Town of Middleborough, MA	168	61,502	168
Public Service Electric & Gas Co.	26,332	9,611,180	26,332
Southern Conn. Gas Co.	8,426	3,075,672	8,426
Yankee Gas Services	1,559	569,035	1,559
Uncommitted	15,377	5,612,787	15,377
Total	74,765	27,290,317	74,765

It is indicated that under Rate Schedule FT-1, and with Applicant's consent, Buyer may tender quantities of gas in excess of the maximum daily transportation quantity on any day if the tender and transportation of such gas can be accomplished by Applicant without detriment to any other Buyers under any of the Applicant's rate schedules, if such transportation is compatible to Applicant's system operation requirements, and if Buyer has not in said month transported a quantity of gas equivalent to the maximum daily transportation quantity times the number of days in the month.

Applicant states that the CD-1 Adjustment Program proposed is identical in concept to Applicant's prior DCQ Contract Adjustment Program approved by the Commission in Docket No. CP84-429 in 1985. It is submitted that the precedent agreement provide that Buyer agrees to pay for service consistent with the rate design methodology authorized by the Commission in the DCQ adjustment program. Applicant further states that, for all service rendered by Applicant to Buyers, Buyers would pay Applicant each month the effective rates under Rate Schedules CD-1, FT-1 (or SGS) in

Applicant's FERC Gas Tariff. In addition, Applicant states that Buyers would pay Applicant each month a special one-part demand charge of \$7.101 per dt derived from the incremental cost of service attributable to the facilities for which Applicant is requesting authorization. Applicant submits that the rationale underlying the Commission's approval of the one-part incremental demand charge in Docket No. CP84-429 would be equally appropriate to the rate methodology proposed.

In order to provide additional capacity to deliver 150,000 dt per day of natural gas to the indicated Buyers, Applicant requests authorization to construct and operate the following facilities in Pennsylvania and New Jersey:

- Replace 5.25 miles of existing 20-inch pipeline No. 2 with 36-inch pipeline between Station No. 25 and Station No. 26. (M.P. 1389.22 to M.P. 1394.47).
- 6.95 miles of 36-inch pipeline in Morris County, New Jersey.
- Installation of up to 11,000 HP gas turbine compressor unit at Station 21-A.
- Upgrade two gas turbine/compressors from 4,000 HP to 5,100 HP each at Station No. 26.

- Modify Applicant's Measuring and Regulating Stations Nos. 949 and 1209.
- Install scraper traps and mainline piping inside yard limits at Compressor Stations 21-A, 21, 22, 22-A, 23, 24, 24-A and 25.
- Place in idle service 160.91 miles of 24-inch pipeline between Stations 21-A and 24-A.

Applicant states that it intends to commence construction activities upon receipt of authorization in order to enable Applicant to render firm service commencing November 1, 1990.

Applicant estimates the capital cost of the proposed facilities to be \$68,379,000. Applicant indicated that it would initially finance the proposed facilities from funds on hand and fund generated from operations and may later be financed as part of Applicant's long-term financing.

Applicant requests authorization to abandon 74,000 dt equivalent per day of its contract obligation with CNG under Rate Schedule CD-1 and 37,500 dt equivalent per day of its contract obligation under Rate Schedule FT-1, commencing November 1, 1990, or the placing in service of facilities proposed herein. Applicant states that, upon authorization, and in accordance with the October 27, 1989 precedent



agreement, Applicant and CNG would enter into new service agreement reflecting the authorized abandonment.

Applicant states that extensive market data was filed by the proposed CDS customers in response to the Commission's Staff market data request of March 21, 1988, in the Northeast Open Season proceedings, and in support of the CDS project application in Docket No. CP88-181-000, and that inasmuch as its amended application is a modification of the CDS contract structure only and proposes to serve the identical customers, Applicant incorporates by reference the market data previously filed in Docket No. CP88-181-000.

Applicant further states that there is a pressing need for the project supplies this winter and requests that, pending determination and approval of the firm service, the request for interim service be severed and a limited term certificate issued in order that interim service deliveries may commence for the 1989-90 winter season.

*Comment date:* December 7, 1989, in accordance with the first subparagraph of Standard Paragraph F at the end of this notice.

#### 5. CNG Transmission Corp.

Docket No. CP90-177-000

November 16, 1989.

Take notice that on October 31, 1989, CNG Transmission Corporation (CNG), 445 West Main Street, Clarksburg, West Virginia 26301, filed in the above docket an application pursuant to section 7 of the Natural Gas Act and § 157.5 *et seq.* of the Federal Energy Regulatory Commission's (FERC or Commission) regulations thereunder, for a certificate of public convenience and necessity authorizing CNG to construct and operate 7.1 miles of 30" natural gas pipeline in Tompkins County, New York, and also a measuring and regulating station (M&R), at Woodhull, Steuben County, New York. CNG states that these facilities are necessary to render a proposed transportation service, for which it also seeks certificate authorization, on behalf of 5 LDC customers who are purchasing natural gas storage from a proposed storage pool in Steuben County, New York, being developed by the Steuben Gas Storage Company under an application filed at Docket No. CP89-1684-000, all as more fully set forth in the request which is on file with the Commission and open to public inspection.

CNG requests a certificate to perform transportation services necessary to access a storage pool being developed by the Steuben Gas Storage Company in

Steuben County, New York. CNG states that Steuben Gas Storage has already field, at Docket No. CP89-1684-000, an application to perform the storage component of this service and to construct the facilities necessary for 6.2 Bcf of annual storage capacity. CNG states that it must construct facilities to perform the transportation component of this project; CNG states that certificate authority to do so is also requested.

CNG's role in this storage service, CNG states, is limited to the delivery of gas to a connection with Steuben Gas Storage at Woodhull, Steuben County, New York from a receipt point with the facilities of Transcontinental Gas Pipe Line Company (Transco), Texas Eastern Transmission Corporation (Texas Eastern) or Tennessee Gas Pipeline Company (Tennessee) during injection. During withdrawal from storage, CNG states that it will make deliveries from Woodhull back to the above interstate pipelines. CNG states that it has no ownership in the storage pool itself. CNG states that Steuben will construct 13.9 miles of 12" pipeline to connect the storage pool with CNG's proposed M&R station at Woodhull.

To accomplish its proposed transportation service, CNG states that it will construct a M&R station at Woodhull to connect with the Steuben Gas Storage Company pipeline. CNG states that it will also build 7.1 miles of 30-inch pipeline from Cayuta, New York to the Benjamin Hill gate junction in Tompkins County, New York to render this service. The proposed CNG pipeline would loop CNG's existing Lines 1 and 31 and would be Extension 1 to existing TL-473. The new pipeline would be referred to generally as TL-473 Ext 1. CNG states that no land acquisition is necessary for the Woodhull M&R station. Where TL-473 Ext.1 parallels Lines 1 and 31, existing permanent right-of-way must be widened by 14 feet. Near Newfield, New York, where the new line will not parallel existing pipe, new right-of-way is necessary. Any environmental disturbance related to the proposed facilities will be of short duration and minimal impact, CNG states, and CNG submits that approval of this application will not constitute a major federal action significantly affecting the human environment.

CNG states that the cost of these two new facilities, the pipeline and M&R station, is estimated to be \$7,975,600 exclusive of filing fees. These facilities will be financed from funds on hand or will be obtained from CNG's parent company, Consolidated Natural Gas Company.

Under its proposal, CNG states that CNG will be rendering transportation

services for five LDC customers who are subscribing to storage at the new Steuben Gas Storage pool. These five customers are:

Public Service Electric & Gas Company,  
Commonwealth Gas Company,  
Elizabethtown Gas Company,  
New Jersey Natural Gas Supply  
Company,  
City of Union, South Carolina.

CNG states that as of this filing, executed copies of the transportation agreements had not been received by CNG from all parties. Receipt of executed agreements is believed imminent, and they will be filed immediately upon receipt.

CNG states that the points of receipts and delivery to and from CNG will be identical for all of the above customers except Commonwealth. CNG will receive the shipper's gas for transportation from either Transco or Texas Eastern at their respective Leidy interconnection with CNG. CNG will then deliver the gas to Woodhull for receipt by Steuben and, ultimately, injection into the storage pool. During withdrawal periods CNG will receive gas from Steuben at Woodhull and deliver to Transco at Leidy.

CNG states that the receipt and delivery points differ from those above for shipper Commonwealth Gas. CNG will receive Commonwealth's gas at the Morrisville connection between CNG and Tennessee in Madison County, New York, or at the existing connection between CNG and Tennessee at Ellisburg, Potter County, Pennsylvania. Commonwealth's gas will then be delivered to Steuben at Woodhull for injection. Withdrawal gas will be received by CNG at Woodhull and redelivered to Tennessee at Morrisville for Commonwealth's account.

CNG states that it has existing sales and/or transportation agreements, besides the draft service agreements being filed with its application, with several of the Steuben customers. CNG states that the service being proposed by this application is in addition to that contemplated in the existing service agreements, and an incremental rate is necessitated by the facilities CNG must construct to perform this new service. CNG states that the customers have agreed to an incremental rate design as depicted below.

The following chart depicts the maximum daily transportation quantities (MDTQ) at the injection and withdrawal points of receipt, the maximum annual transportation quantity (MATQ) and the monthly demand charge for each customer:



	MDTQ injection (Dt)	MDTQ withdrawal (Dt)	MATQ (Dt)	Monthly demand charge
New Jersey Natural .....	7,250	11,044	2,009,000	\$24,162
Elizabethtown .....	3,625	5,522	1,004,500	12,018
Public Service .....	24,686	30,769	6,840,645	74,246
Commonwealth .....	9,062	11,295	2,511,250	27,256
City of Union .....	326	497	90,405	1,087
Total .....	44,949	59,127	12,455,800	\$138,832

The rate which CNG is proposing for this transportation service, as shown above, is a one-part demand rate, payable regardless of actual quantities transported. It is an incremental rate, based upon the cost of completing the Steuben Project and the pro rate share of capacity subscribed for by each customer. Revenue anticipated under the rate design fully compensates CNG for the costs of the project. Therefore, CNG's existing customers will not be required to subsidize this service in any way.

As stated previously, Steuben has already filed for a certificate authorizing it to render the storage service. CNG states that Transco may also be filing an application to certify its proposed service under this project. CNG states that Commonwealth will currently be shipping gas on Tennessee's system on an interruptible basis; however, in the event that a firm transportation agreement is reached in the future, Tennessee may be required to also file for a certificate. CNG states that Steuben represented in its application that it has filed with the state of New York for all necessary state authorizations, and CNG will be doing so in the near future. To the best of CNG's knowledge no other applications are necessary by any of the parties to implement this service.

*Comment date:* December 7, 1989 in accordance with Standard Paragraph F at the end of the notice.

#### 6. Algonquin Gas Transmission Co.

[Docket No. CP 90-231-000]

November 16, 1989.

Take notice that on November 9, 1989, Algonquin Gas Transmission Company, (Algonquin) 1284 Soldiers Field Road, Boston, Massachusetts, 02135 filed in Docket No. CP90-231-000 a request pursuant to § 157.205 of the Commission's Regulations under the Natural Gas Act (18 CFR 157.205) for authorization to transport natural gas on behalf of Dolphin Energy, Inc. (Dolphin), under its blanket authorization issued in Docket No. CP89-948-000 pursuant to section 7 of the Natural Gas Act, all as more fully set forth in the request which is on file with the Commission and open to public inspection.

Algonquin would perform the proposed interruptible transportation service for Dolphin, a shipper and marketer of natural gas, pursuant to a gas transportation agreement dated August 23, 1989 (Contract No. 8910029). The term of the transportation agreement became effective on August 23, 1989, and will continue in effect for a period of 120 days from the date of initial delivery, subject to appropriate authorization; and then continue in effect for a period ending on August 31, 1994, and month to month thereafter, unless terminated upon 30 days written notice by either party. Algonquin proposes to transport on a peak day up to 50,000 MMBtu; on an average day up to 50,000 MMBtu; and on an annual basis 18,250,000 MMBtu for Dolphin. Algonquin proposes to receive the subject gas from various existing points of receipt on its system located in New York, New Jersey, and Massachusetts. Algonquin would then transport and redeliver the subject gas, less fuel used and unaccounted for line loss, to Providence Gas Company in Providence and Newport Counties, Rhode Island. The proposed rate to be charged is contained in Algonquin's AIT-1 rate schedule.

It is explained that the proposed service is currently being performed pursuant to the 120-day self implementing provision of § 284.223(a)(1) of the Commission's Regulations. Algonquin commenced such self-implementing service on September 22, 1989, as reported in Docket No. ST90-220-000.

*Comment date:* January 2, 1990, in accordance with Standard Paragraph G at the end of this notice.

#### 7. Natural Gas Pipeline Company of America

[Docket No. CP 90-227-000]

November 16, 1989.

Take notice that on November 9, 1989, Natural Gas Pipeline Company of America (Natural), 701 East 22nd Street, Lombard, Illinois 60148, filed in Docket No. CP90-227-000 a request pursuant to § 157.205 of the Commission's Regulations under the Natural Gas Act (18 CFR 157.205) for authorization to transport natural gas on behalf of BP

Gas Inc. (BP Gas), a marketer of natural gas, under its blanket authorization issued in Docket No. CP86-582-000 pursuant to section 7 of the Natural Gas Act, all as more fully set forth in the request which is on file with the Commission and open to public inspection.

Natural would perform the proposed interruptible transportation service for BP Gas, pursuant to an interruptible transportation service agreement dated June 22, 1989 (Agreement No. IGP-1918). The transportation agreement is effective for a primary term ending June 22, 1994, and shall continue month to month thereafter unless terminated by five days prior notice by either party. Natural proposes to transport up to a maximum of 100,000 MMBtu of natural gas per day (plus any additional volumes accepted pursuant to the overrun provisions of Natural's Rate Schedule ITS). BP Gas advised Natural that the volume anticipated to be transported on an average day is 25,000 MMBtu; and based on that average day figure, the annual volume to be transported is 9,125,000 MMBtu. Natural proposes to receive the subject gas at various points located in the states of Illinois, Kansas, Oklahoma, Nebraska and Texas. It is stated that the delivery points are located in Illinois, Iowa, Kansas, Oklahoma, Nebraska, New Mexico and Texas. Natural avers that no new facilities are required to provide the proposed service.<sup>1</sup>

It is explained that the proposed service is currently being performed pursuant to the 120-day self-implementing provision of § 284.223(a)(1) of the Commission's Regulations. Natural commenced such self-implementing service on September 8, 1989, as reported in Docket No. ST90-296-000.

<sup>1</sup> Natural states that Receipt Point No. 24 is incorrectly listed in Exhibit A to the transportation agreement as a 'proposed' point. According to Natural, this point was originally constructed as a facility to be utilized solely for transportation authorized by Section 311 of the NGPA and Subpart B of Part 284. Natural avers that use of Point No. 24 for jurisdictional service was reported in Natural's Annual Report for Blanket Certificate Activities filed May 1, 1989, in Docket No. CP82-402-000.



*Comment date:* January 2, 1990, in accordance with Standard Paragraph G at the end of this notice.

#### Standard Paragraphs:

F. Any person desiring to be heard or make any protest with reference to said filing should on or before the comment date file with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (19 CFR 385.211 and 385.214) and the Regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commission's Rules.

Take further notice that, pursuant to the authority contained in and subject to jurisdiction conferred upon the Federal Energy Regulatory Commission by sections 7 and 15 of the Natural Gas Act and the Commission's Rules of Practice and Procedure, a hearing will be held without further notice before the Commission or its designee on this filing if no motion to intervene is filed within the time required herein, if the Commission on its own review of the matter finds that a grant of the certificate is required by the public convenience and necessity. If a motion for leave to intervene is timely filed, or if the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for the applicant to appear or be represented at the hearing.

G. Any person or the Commission's staff may, within 45 days after the issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to § 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefore, the proposed activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for

authorization pursuant to section 7 of the Natural Gas Act.

Lois D. Cashell,

Secretary.

[FR Doc. 89-27392 Filed 11-21-89; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. RP89-48-004]

#### Transwestern Pipeline Co.; Filing

November 15, 1989.

Take notice that on November 9, 1989, Transwestern Pipeline Company (Transwestern) filed Second Substitute Original Sheet Nos. 25C and 32D to its FERC Gas Tariff, Second Revised Volume No. 1, to be effective October 1, 1989.

Transwestern states that these tariff sheets correct typographical errors found on its tariff sheets filed October 30, 1989.

Transwestern requests waiver of the Commission's Regulations as may be necessary to permit these substitute tariff sheets to become effective on October 1, 1989, as proposed.

Any person desiring to protest said filing should file a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, DC 20426, in accordance with Rules 214 and 211 of the Commission's Rules of Practice and Procedure (18 CFR 385.214, 385.211 (1989)). All such protests should be filed on or before November 22, 1989. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Persons that are already parties to this proceeding need not file a motion to intervene in this matter. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 89-27390 Filed 11-21-89; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. TA90-1-35-001]

#### West Texas Gas, Inc.; Filing

November 15, 1989.

On November 6, 1989, West Texas Gas, Inc. (WTG) filed Sixteenth Revised Sheet No. 3a to its FERC Gas Tariff, Original Volume No. 1, proposed to be effective October 1, 1989. Take notice that on November 6, 1989, WTG filed a Substitute Sixteenth Revised Sheet No. 3a to correct errors in the August 22

filing. Substitute Sixteenth Revised Sheet No. 3a and the accompanying explanatory tariff sheets were filed by WTG in accordance with the transmittal rules under the Commission's purchased gas adjustments regulations and the Commission's letter order dated October 20, 1989.

In its November 6 compliance filing, WTG also seeks waiver of § 154.305(i)(1)(ii) with respect to a refund subaccount credit balance in the month of July 1988, where the amount of the credit balance slightly exceeded 1 cent per MMBtu.

Copies of the filing were served upon WTG's customers and interested state commissions.

Any persons desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214 (1987)). All such motions or protests should be filed on or before November 24, 1989. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Lois D. Cashell,

Secretary.

[FR Doc. 89-27391 Filed 11-21-89; 8:45 am]

BILLING CODE 6717-01-M

#### Office of Fossil Energy

[FE Docket No. 89-33-NG]

#### Niagara Mohawk Power Corp.; Conditional Order Granting Authorization To Import Natural Gas From Canada

**AGENCY:** Office of Fossil Energy, DOE.

**ACTION:** Notice of conditional order granting authorization to import natural gas from Canada.

**SUMMARY:** The Office of Fossil Energy (FE) of the Department of Energy (DOE) gives notice that it has issued an order granting Niagara Mohawk Power Corporation conditional authority to import from Canada up to 51,000 Mcf per day of natural gas on a firm basis and up to an additional 105,000 Mcf per day on an interruptible basis over a term beginning the later of November 1, 1990, or the date all regulatory approvals are



received and proposed new facilities are available.

Final approval of this import is conditioned on DOE's completion of its responsibilities under the National Environmental Policy Act of 1969.

A copy of this order is available for inspection and copying in the Office of Fuels Programs Docket Room, 3F-056, Forrestal Building, 1000 Independence Avenue SW., Washington, DC 20585, (202) 586-9478. The docket room is open between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Issued in Washington, DC, November 16, 1989.

Clifford P. Tomaszewski,

*Acting Deputy Assistant Secretary for Fuels Programs, Office of Fossil Energy.*

[FR Doc. 89-27477 Filed 11-21-89; 8:45 am]

BILLING CODE 6450-01-M

[FE Docket No. 89-61-NG]

**Western Gas Processors, Ltd.;  
Application To Import Natural Gas  
From and Export Natural Gas to  
Canada**

**AGENCY:** Office of Fossil Energy, DOE.

**ACTION:** Correction.

**SUMMARY:** The Federal Register Notice of the application in this docket published on October 23, 1989 (54 FR 43203), incorrectly stated the proposed import and export volumes. Western Gas Processors, Ltd. (WGP) requests blanket authorization to import up to 100,000 MMBtu (approximately 100,000 Mcf) per day of Canadian natural gas and to export up to 100,000 MMBtu per day of domestic natural gas to Canada over a term of two-years commencing on the date of first delivery.

All parties should be aware that if this blanket import/export application is granted a total amount of authorized volumes may be designated for the term rather than a daily limit to provide the applicant with maximum flexibility of operation.

Due to this error, the period for filing protests, motions to intervene or notices of intervention, as applicable, requests for additional procedures, and written comments is being extended. They must be filed no later than 4:30 p.m., e.s.t., December 1, 1989.

**ADDRESS:** Office of Fuels Programs, Fossil Energy, U.S. Department of Energy, Forrestal Building, Room 3F-056, 1000 Independence Avenue SW., Washington, DC 20585.

A copy of WGP's application is available for inspection and copying in the Office of Fuels Programs Docket

Room, 3F-056, at the above address. The docket room is open between the hours of 8 a.m. and 4:30 p.m., e.d.t., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Tom Dukes, Office of Fuels Programs, (202) 586-9590.

Issued in Washington, DC, November 16, 1989.

Clifford P. Tomaszewski,

*Acting Deputy Assistant Secretary for Fuels Programs, Office of Fossil Energy.*

[FR Doc. 89-27478 Filed 11-21-89; 8:45 am]

BILLING CODE 6450-01-M

## ENVIRONMENTAL PROTECTION AGENCY

[FRL-3682-5]

### Availability of Information on Iron- Based Diesel Fuel Additive System for Particulate Trap Regeneration

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of availability.

**SUMMARY:** Volkswagen of America, Inc. (VW) has submitted to EPA information regarding a new iron-based diesel fuel additive and particulate control system for diesel vehicles which it and/or other manufacturers might at some future date wish to use on certain vehicle models for sale in the U.S. The relevant information is available for review and comment.

**ADDRESS:** Copies of documents relevant to this are available for inspection in public docket (A-89-17) at the Air Docket of the EPA, room M-1500, First Floor, Waterside Mall, 401 M Street, SW., Washington, DC 20460, (202) 382-7548, between the hours of 8:30 a.m. and 12 noon, and 1:30 p.m. and 3:30 p.m. on weekdays. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services. A copy of the docket is also available for inspection in Room 112 of EPA's Motor Vehicle Emission Laboratory, 2565 Plymouth Road, Ann Arbor, Michigan 48105. Any comments or other documents to be submitted to the docket should be submitted in duplicate.

**FOR FURTHER INFORMATION CONTACT:** Craig A. Harvey, Mechanical Engineer, Technical Support Staff (TSS-11), U.S. Environmental Protection Agency, Motor Vehicle Emission Laboratory, 2565 Plymouth Road, Ann Arbor, Michigan 48105 (313) 668-4237.

**SUPPLEMENTARY INFORMATION:**

#### I. Background

Pursuant to section 202(a)(4) of the Clean Air Act, effective with respect to

vehicles and engines manufactured after model year 1978, no emission control device, system, or element of design shall be used in a new motor vehicle or new motor vehicle engine for purposes of complying with standards prescribed under this subsection if such device, system, or element of design will cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function.

The purpose of the VW additive system is to reduce the ignition temperature of diesel particulates in a particulate trap so as to allow continuous trap regeneration. The VW system consists of (1) a small tank holding the organic iron additive dissolved in kerosene, (2) a fuel line connecting this tank to the main fuel line which connects the diesel fuel tank to the main fuel injection pump, and (3) a pump to meter the additive from its tank into the main fuel line so as to achieve a constant additive to fuel ratio of approximately 1:2500.

VW has conducted studies on the effects of this system on regulated and various unregulated diesel emissions including emissions of the organic iron additive and mutagenic activity of the particulates.

VW or another manufacturer may later seek certification of a diesel vehicle using this system.

#### II. Discussion

This Federal Register notice and docket formation are supplemental to the EPA Fuel and Fuel Additive Registration program, which requires manufacturers of gasoline and diesel fuel additives to register their composition, expected use levels, and other information with the EPA, as required in 40 CFR part 80. This VW iron-based additive is receiving this additional opportunity for public comment due to its metallic nature and its similarity to an earlier VW manganese-based additive which received a high degree of public interest.

From an initial review of the available information, it does not appear that any unreasonable risk to health or welfare would exist as a result of commercial use of an iron-based diesel fuel additive system as proposed by VW. However, early identification and resolution of any factual issues relating to the use of this system and possible risks would be advantageous; therefore, comments on this system are invited. Comments may be submitted directly to the docket section identified in the address section of this notice.



Dated: November 15, 1989.

Michael Shapiro,

*Acting Assistant Administrator for Air and Radiation.*

[FR Doc. 89-27468 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M

[FRL-3682-7]

**Request for Suggestions of Candidates for Membership on the National Advisory Council for Environmental Technology Transfer**

**SUMMARY:** The Environmental Protection Agency (EPA) hereby requests suggestions of candidates for membership on the National Advisory Council for Environmental Technology Transfer (NACETT), an Advisory Committee to EPA's Administrator established under the Federal Advisory Committee Act, U.S.C. (App. I) 9 (c). The Advisory Council assists the Agency in performing its duties prescribed in the Federal Technology Transfer Act of 1986 (FTTA), Executive Order 12591, and other legislation, executive orders and regulations which authorize or mandate EPA to engage in activities associated with technology transfer. New members will serve three-year terms.

The membership of the Advisory Council includes a balanced representation of interested persons with professional and personal qualifications and experience to contribute to the functions of the Advisory Council drawn from business and industry; the academic, educational and training community; and governmental organizations, plus environmental organizations and professional associations.

**DATE:** Submit suggestions of candidates no later than December 7, 1989. Any interested person or organization may submit the names of qualified persons. Suggested candidates should be identified by name, occupation, organization, position, address, and telephone number. Candidates must submit a resume of their background, experience and other relevant information as a part of the consideration process.

**ADDRESS:** Submit suggestions for the list of candidates to: Office of Cooperative Environmental Management (A-101F6), U.S. Environmental Protection Agency, Fairchild Building, Suite 115, 499 South Capitol Street, SW., Washington, DC 20460, Attention: William V. Garetz.

**FOR FURTHER INFORMATION CONTACT:** R. Thomas Parker, or William V. Garetz at the above address or at 202-475-9741. The Agency will not formally acknowledge or respond to suggestions.

**SUPPLEMENTARY INFORMATION:** Copies of the Advisory Council charter and current membership are available upon request. The purpose of the Advisory Council is to provide advice and counsel to the Administrator of the Environmental Protection Agency (EPA) on the implementation of environmental programs, on technology transfer issues associated with the management of environmental problems, and on opportunities for EPA to better draw on the full intellectual and financial resources of the full array of U.S. and international institutions concerned with meeting pressing environmental needs within the U.S. and globally as EPA continues to move forward in carrying out its mission. The Advisory Council is a part of EPA's efforts to expand cooperative working relationships and to broaden the national environmental technology base. The Advisory Council addresses itself to such specific technology transfer needs and issues as: Identifying the barriers impeding environmental technology transfer and training efforts and possible approaches for reducing these barriers; creating a positive institutional climate within EPA with respect to technology transfer and training activities; promoting cooperative, mutually-supportive EPA-State relationships aimed at establishing more effective environmental management at Federal, State and local levels; increasing and institutionalizing communication among all levels of government, the business community, the academic, educational and training community, the environmental advocacy community, the professional community, and the international environmental community; developing and applying an appropriate array of existing and new delivery mechanisms for meeting technology transfer and training needs; implementing the FTFA, Executive Order 12591, and other related or associated authorities; reviewing any periodic EPA reports describing the Agency's progress in implementing statutes, executive orders and regulations on technology transfer; and assessing alternative approaches for measuring the environmental benefits of technology transfer activities. NACETT has five standing Committees: Education and Training; State and Local Programs; International Technology Transfer; Technology Innovation and Economics; and the Environmental Financial Advisory Board. Each member of the Advisory Council will be appointed to serve on one of these Committees.

The Advisory Council meets twice each year, and its Committees meet as they deem necessary. No honoraria or salaries are provided for members on

the Advisory Council, but compensation for travel and nominal daily expenses while attending meetings may be provided.

The Advisory Council's next meeting will be held on March 27-28, 1989.

Suggestions for the list of candidates should be submitted no later than December 7, 1989.

Dated: November 17, 1989.

R. Thomas Parker,  
*Director, Office of Cooperative Environmental Management.*

[FR Doc. 89-27469 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M

[FRL-3682-3]

**National Drinking Water Advisory Council; Open Meeting**

Under section (10)(a)(2) of Public Law 92-423, "The Federal Advisory Committee Act," notice is hereby given that a meeting of the National Drinking Water Advisory Council established under the Safe Drinking Water Act, as amended (Pub. L. 99-339), will be held at 9 a.m. on December 7, 1989, and at 8:30 a.m. on December 8, 1989, at the Embassy Row Hotel, 2015 Massachusetts Avenue, NW., Washington, DC 20036. Council Subcommittees will hold their meetings on December 5 and 6, 1989.

The purpose of the meeting will be to provide the Council options being considered by the Office of Drinking Water for the Lead and Copper National Primary Drinking Water Regulations regarding the (a) regulatory approach, (b) means to ensure that public water systems are not held responsible for problems beyond their control, (c) monitoring requirements, (d) compliance schedules, and (e) lead service line replacement.

Other items for discussion include: An EPA drinking water enforcement initiative; state primacy; status of the Phase II, Phase V and Radionuclide regulatory packages; status of guidance on affordability and unreasonable risk to health; and updates on the Wellhead Protection Program and EPS Ground Water Task Force. A panel discussion on health related research as a basis for drinking water regulations will be held on December 7.

The meeting will be open to the public. The Council encourages the hearing of outside statements and will allocate a portion of its meeting time for public participation. Oral statements will be limited to ten minutes. It is preferred that there be one presenter for each statement. Any outside parties



interested in presenting an oral statement should petition the Council by telephone at (202) 382-2285. The petition should include the topic of the proposed statement, the petitioner's telephone number and should be received by the Council before December 4, 1989.

Any person who wishes to file a written statement can do so before or after a Council meeting. Written statements received prior to the meeting will be distributed to the members before any final discussion or vote is completed. Statements received after a meeting will become part of the permanent meeting file and will be forwarded to the Council members for their information.

Any member of the public wishing to attend the Council meeting, present an oral statement, or submit a written statement, should contact Ms. Charlene E. Shaw, Designated Federal Official, National Drinking Water Advisory Council, U.S. Environmental Protection Agency, Office of Drinking Water (WH-550A), 401 M Street, SW., Washington, DC 20460, or at 202/382-2285.

Dated: November 16, 1989.

Robert H. Wayland,

Acting Assistant Administrator for Water.

[FR Doc. 89-27470 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M

[FRL-3682-4]

**Science Advisory Board; Sediment Criteria Subcommittee and Ecological Processes and Effects Committee; Open Meetings**

Under Public Law 92-463, notice is hereby given that meetings of the Sediment Criteria Subcommittee and of the Ecological Processes and Effects Committee of the Science Advisory Board will be held in consecutive sessions from December 11-13, 1989 in Salon C at the Marriott Crystal Gateway Hotel, 1700 Jefferson Davis Highway, Arlington, VA 22202.

The Sediment Criteria Subcommittee meeting will start at 8:30 a.m. on December 11, and will adjourn no later than 12:30 p.m. December 12, and is open to the public. The main purpose of this meeting is to review a draft SAB subcommittee report on the Equilibrium Partitioning Method that was developed as a result of an earlier subcommittee

meeting and to begin review of an Agency draft report entitled "Sediment Classification Methods Compendium".

The Ecological Processes and Effects Committee (EPEC) meeting will start at 1:30 p.m. on December 12, and will adjourn no later than 5 p.m. December 13, and is open to the public. The main purpose of this meeting is to review the status of the Agency's Bioremediation Project in Prince William Sound Alaska and to discuss the potential activities of the EPEC for 1990.

An agenda for both meetings is available from Dorothy Clark, Staff Secretary, Science Advisory Board (A101F), U.S. Environmental Protection Agency, Washington DC 20460 (202-382-2552). Members of the public desiring additional information should contact Dr. Edward S. Bender, Executive Secretary, Environmental Effects, Transport, and Fate Committee, by telephone at the number noted above, by FAX (202-4759693), or by mail to the Science Advisory Board (A101F), 401 M Street, SW., Washington, DC 20460 no later than December 1, 1989. Anyone wishing to make a presentation at the meeting should forward a written statement to Dr. Bender by December 1, 1989. The Science Advisory Board expects that the public statements presented at its meetings will not be repetitive of previously submitted written statements. In general, each individual or group making an oral presentation will be limited to a total time of ten minutes. Seating at the meeting will be on a first come basis.

Dated: November 14, 1989.

Donald Barnes,

Director, Science Advisory Board.

[FR Doc. 89-27471 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M

**Office of Pesticides and Toxic Substances**

[OPP-30302, FRL 3664-4]

**Certain Companies Applications To Register Pesticide Products**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** This notice announces receipt of applications to register pesticide products containing active ingredients not included in any previously registered products pursuant to the provisions of section 3(c)(4) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended.

**DATE:** Comment by December 22, 1989.

**ADDRESS:** By mail submit comments identified by the document control number (OPP-30302) and the registration/file number, attention Product Manager (PM) named in each application at the following address:

Public Docket and Freedom of

Information Section,

Field Operations Programs (H7506C),

Office of Pesticide Programs,

Environmental Protection Agency,

401 M St., SW.,

Washington, DC 20460.

In person, bring comments to:

Environmental Protection Agency,

Rm. 246, CM#2, 1921 Jefferson Davis

Highway, Arlington, VA.

Information submitted in any comment concerning this notice may be claimed confidential by marking any part or all of that information as "Confidential Business Information" (CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. A copy of the comment that does not contain CBI must be submitted for inclusion in the public record.

Information not marked confidential may be disclosed publicly by EPA without prior notice to the submitter. All written comments will be available for public inspection in room 246 at the address given above, from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays.

**FOR FURTHER INFORMATION CONTACT:** By mail: Registration Division (H7505C), Attn: (Product Manager (PM) named in each registration), Office of Pesticide Programs, 401 M St., SW., Washington, DC 20460.

In person: Contact the PM named in each registration at the following office location/telephone number:



Product manager	Office location/telephone number	Address
PM 21, Susan Lewis (A) .....	Rm. 202, CM#2 (703-557-1900) .....	Environmental Protection Agency, 1921 Jefferson Davis Hwy, Arlington, VA 22202 Do.
PM 25, Robert Taylor .....	Rm. 229, CM#2 (703-557-1800) .....	

**SUPPLEMENTARY INFORMATION:** EPA received applications as follows to register pesticide products containing active ingredients not included in any previously registered products pursuant to the provisions of section 3(c)(4) of FIFRA. Notice of receipt of these applications does not imply a decision by the Agency on the applications.

**Products Containing Active Ingredients Not Included in Any Previously Registered Products**

1. File Symbol: 59441-R. Applicant: Eastman Kodak Co., Agricultural Unit, 343 State St., Rochester, NY 14650. Product name: F-Stop Biological Fungicide Concentrate. Fungicide. Active ingredient: *Trichoderma harzianum* Rifai Strain KRL-AG2 100 percent. Proposed classification/Use: General. For manufacturing use only. (PM 21)

2. File Symbol: 59441-E. Applicant: Eastman Kodak Co. Product name: F-Stop Biological Fungicide Seed Protectant. Fungicide. Active ingredient: *Trichoderma harzianum* Rifai Strain KRL-AG2 100 percent. Proposed classification/Use: General. For control of *Pythium* spp. damping off and seed rot. (PM 21)

3. File Symbol: 352-LGU. Applicant: E. I. Du Pont de Nemours and Co., Inc., Agricultural Products Dept, Walker Mill Bldg., Barley Mill Plaza, Wilmington, DE 19880-0038. Product name: Du Pont Accent Herbicide. Herbicide. Active ingredient: 2-(((4,6-Dimethoxypyrimidin-2-yl)aminocarbonyl))aminosulfonyl)-N,N-dimethyl-3-pyridinecarboxamide, monohydrate 75.0 percent. Proposed classification/Use: General. For the control of annual and perennial grass weeds on field corn. (PM 25)

4. File Symbol: 352-LGL. Applicant: E. I. Du Pont de Nemours and Co., Inc. Product name: Du Pont Accent Technical. Herbicide. Active ingredient: 2-(((4,6-Dimethoxypyrimidin-2-yl)aminocarbonyl))aminosulfonyl)-N,N-dimethyl-3-pyridinecarboxamide, monohydrate 88.5 percent. Proposed classification/Use: General. For formulation use on corn only. (PM 25)

Notice of approval or denial of an application to register a pesticide product will be announced in the **Federal Register**. The procedure for requesting data will be given in the

**Federal Register** if an application is approved.

Comments received within the specified time period will be considered before a final decision is made; comments received after the time specified will be considered only to the extent possible without delaying processing of the application.

Written comments filed pursuant to this notice, will be available in the Program Management and Support Division (PMSD) office at the address provided from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays. It is suggested that persons interested in reviewing the application file, telephone the PMSD office (703-557-3262), to ensure that the file is available on the date of intended visit.

Authority: 7 U.S.C. 136.

Dated: November 12, 1989.

Anne E. Lindsay,

Director, Registration Division, Office of Pesticide Programs.

[FR Doc. 89-27214 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M

[OPP-36140A; FRL 3667-6]

**Inert Ingredients in Pesticide Products; Policy Statement; Revision and Modification of Lists**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** EPA is revising and modifying previously published lists of inert ingredients in pesticide products that are of toxicological concern and require priority testing. EPA is also addressing the period of time allowed to exhaust stocks of old formulations.

**EFFECTIVE DATE:** The modified lists are effective on November 22, 1989.

**ADDRESSES:** Three copies of written comments bearing the document control number [OPP-36140A] should be submitted, by mail, to: Public Docket and Freedom of Information Section, Field Operation Division (H7504C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460.

In person, deliver comments to: Rm. 246, CM #2, 1921 Jefferson Davis Hwy., Arlington, VA.

Information submitted as a comment in response to this Notice may be

claimed confidential by marking any part or all of that information as "Confidential Business Information" (CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. A copy of the comment that does not contain CBI must be submitted for inclusion in the public docket. Information not marked "confidential" will be included in the public docket without further notice. The public docket is available for public inspection in room 246 at the address given above from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays.

**FOR FURTHER INFORMATION CONTACT:** Lynn M. Bradley, Registration Support Branch, Registration Division (H7505C), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, (202)-703-557-7700.

**SUPPLEMENTARY INFORMATION:** EPA announced its policy on toxic inert ingredients in pesticide products in the **Federal Register** of April 22, 1987 (52 FR 13305). Through this policy, EPA encourages the use of the least toxic inert ingredients available and requires the development of data necessary to determine the conditions of safe use of products that contain toxic inert ingredients. In developing this policy, EPA categorized inert ingredients into the following four lists according to toxicity:

- List 1 Inerts of toxicological concern
- List 2 Potentially toxic inerts, with high priority for testing
- List 3 Inerts of unknown toxicity
- List 4 Inerts of minimal concern

List 1 and List 2 were published as part of the April 22, 1987 policy statement.

The criteria developed by EPA to categorize List 1 inerts were reviewed by the Federal Insecticide, Fungicide, and Rodenticide Act's Scientific Advisory Panel (FIFRA SAP). Chemicals were placed on the list of inerts of toxicological concern if they met any one of the following criteria.

- (1) Carcinogenicity:
  - A rating as a human carcinogen of probable human carcinogen (rating 1, 2A or 2B) by International Agency for Research on Cancer.
  - Characterized by the National Toxicology Program as an animal carcinogen in at least one species and one sex.



- Being regulated by some Federal agency as a carcinogen.
- (2) Neurotoxicity and other Chronic Effects:
  - Identified in the Occupational Diseases, a Guide to their Recognition (1977), as causing neurotoxicological and other chronic effects in the workplace environment.
  - Being regulated by some Federal agency as a neurotoxin.
- Peer reviewed study, included in the Toxicology Data Bank of the National Library of Medicine, reporting neurotoxic or other chronic effects.
- (3) Adverse Reproductive Effects:
  - Being regulated by some Federal agency as causing adverse reproductive effects.
  - Peer reviewed study, included in the Toxicology Data Bank of the National Library of Medicine, reporting adverse reproductive effects.
- (4) Ecological Effects:
  - An LC50 of less than one part per million.

#### Revision of Lists of Inert Ingredients

Since the publication of the policy, EPA has received additional data on some of the listed inerts. EPA scientists have reviewed this information according to criteria previously developed and used in the creation of the initial lists. As a result of this recent examination of new data, EPA proposed modifications to the lists. These modifications were submitted to the FIFRA SAP for review. The FIFRA SAP concluded that the proposed changes were justified.

EPA is announcing the following revised List 1 and List 2.

#### LIST 1.—INERTS OF TOXICOLOGICAL CONCERN

CAS No.	Chemical name
62-53-3	Aniline
1332-21-4	Asbestos fiber
1332-21-9	1,4-Benzenediol
7440-43-9	Cadmium compounds
56-23-5	Carbon tetrachloride
67-66-3	Chloroform
106-46-7	p-Dichlorobenzene
103-23-3	Di-(2-ethylhexyl)adipate
78-87-5	1,2-Dichloropropane
117-87-8	Di-ethylhexylphthalate
68-12-2	Dimethylformamide
123-91-1	Dioxane
106-89-8	Epichlorohydrin
110-80-5	2-Ethoxyethanol
111-15-9	Ethanol ethoxyacetate
107-06-2	Ethylene dichloride
109-86-4	Ethylene glycol monomethyl ether
140-88-5	Ethyl acrylate
110-54-3	n-Hexane
302-01-2	Hydrazine
78-59-1	Isophorone
7439-92-1	Lead compounds
568-64-2	Malachite green
591-78-6	Methyl n-butyl ketone

#### LIST 1.—INERTS OF TOXICOLOGICAL CONCERN—Continued

CAS No.	Chemical name
74-87-3	Methyl chloride
75-09-2	Methylene chloride
25154-52-3	Nonylphenol
127-18-4	Perchloroethylene
108-95-2	Phenol
90-43-7	o-Phenylphenol
75-56-9	Propylene oxide
8003-34-5	Pyrethrins
81-88-9	Rhodamine B
10588-01-9	Sodium dichromate
26471-62-5	Toluene diisocyanate
79-00-5	1,1,2-Trichloroethane
56-35-9	Tributyl tin oxide
79-01-6	Trichloroethylene
1330-78-5	Tri-orthocresylphosphate (TOCP)
78-30-8	Tri-orthocresylphosphate (TOCP)

#### LIST 2.—POTENTIALLY TOXIC INERTS/ HIGH PRIORITY FOR TESTING

CAS No.	Chemical name
85-68-7	Butyl benzyl phthalate
84-74-2	Dibutyl phthalate
84-66-2	Diethyl phthalate
131-11-3	Dimethyl phthalate
117-84-0	Diocetyl phthalate
95-49-8	2-Chlorotoluene
1319-77-3	Cresols
95-48-7	o-Cresol
106-44-5	p-Cresol
108-39-4	m-Cresol
108-94-1	Cyclohexanone
95-50-1	o-Dichlorobenzene
112-34-5	Diethylene glycol monobutyl ether
111-90-0	Diethylene glycol monoethyl ether
111-77-3	Diethylene glycol monomethyl ether
34590-94-8	Dipropylene glycol monomethyl ether
111-76-2	2-Butoxy-1-ethanol
5131-86-8	1-Butoxy-2-propanol
124-16-3	1-Butoxyethoxy-2-propanol
107-98-2	1-Methoxy-2-propanol
29387-86-8	Propylene glycol monobutyl ether
25498-49-1	Tripropylene glycol monomethyl ether
141-79-7	Mesityl oxide
108-10-1	Methyl isobutyl ketone
96-29-7	Methyl ethyl ketoxime
108-90-7	Monochlorobenzene
75-52-5	Nitromethane
108-88-3	Toluene
29395-43-1	Tolyl triazole
95-14-7	1,2,3-Benzotriazole
120-32-1	2-Benzyl-4-chlorophenol
75-00-3	Chloroethane
88-04-0	p-Chloro-m-xylene
97-23-4	Dichlorophene
100-41-4	Ethyl benzene
149-30-4	Mercaptobenzothiazole
74-83-9	Methyl bromide
75-43-4	Chlorodifluoromethane
75-43-4	Dichloromonofluoromethane
75-45-6	Chlorodifluoromethane
75-37-6	1,1-Difluoroethane
75-68-3	1-Chloro-1,1-difluoroethane
25168-06-3	Isopropyl phenols Petroleum hydrocarbons
1330-20-7	Xylene
100-02-7	p-Nitrophenol
106-88-7	Butylene oxide
79-24-3	Nitroethane
75-05-8	Acetonitrile
71-55-6	1,1,1-Trichloroethane
102-71-6	Triethanolamine
111-42-2	Diethanolamine

#### LIST 2.—POTENTIALLY TOXIC INERTS/ HIGH PRIORITY FOR TESTING—Continued

CAS No.	Chemical name
97-88-1	Butyl methacrylate
80-62-6	Methyl methacrylate Xylene-range aromatic solvents
95-82-9	2,5-Dichloroaniline
95-76-1	3,4-Dichloroaniline
626-43-7	3,5-Dichloroaniline
554-00-7	2,4-Dichloroaniline
608-27-5	2,3-Dichloroaniline
608-31-1	2,6-dichloroaniline
101-84-8	Diphenyl ether
76-13-1	Trichlorotrifluoroethane
75-69-4	Trichlorotrifluoroethane
75-71-8	Dichlorodifluoromethane
79-14-2	Dichlorotetrafluoroethane

The changes made and the reasons for the changes are explained below.

#### Additions to List 1

Di-(2-ethylhexyl)adipate and dimethyl-formamide (DMF) were moved to List 1 from Lists 3 and 2, respectively. Based on a National Toxicology Program bioassay, positive results for oncogenicity were indicated for di-(2-ethyl-hexyl)adipate: This chemical caused increased incidences of hepatocellular carcinomas in female mice, and thus meets one of the criteria for categorization as a List 1 inert.

For dimethylformamide (DMF), hepatotoxicity has been reported at very low doses in animal studies and is commonly observed in case reports of industrial exposure. Developmental toxicity has also been reported to occur in animal studies in the literature. In addition, recent reports of clusters of testicular cancer associated with human exposure to DMF have added to the weight of evidence which supports upgrading this compound from List 2 to List 1.

#### Additions to List 2

Based on data available at the time of the April 22, 1987, FR Notice, monochlorobenzene was determined to be an oncogen as well as an ecotoxin. For these reasons, it was placed on List 1. The EPA Science Advisory Board has reviewed the oncogenicity data on monochlorobenzene and concluded that it is a class D oncogen, i.e., not classifiable. EPA scientists have reevaluated the ecotoxicity data and concluded that monochlorobenzene does not meet List 1 ecotoxicity triggers. Because of these determinations, monochlorobenzene is being moved from List 1 to List 2 and is now considered as a high priority for testing.

Methyl ethyl ketoxime has been moved from List 3 to List 2 because of its close structural relationship to



acetoxime, which has been reported as being carcinogenic in preliminary tests and is also positive in a mouse lymphoma test. Methyl ethyl ketoxime has been proposed for testing under section 4 of the Toxic Substances Control Act.

#### Additions to Lists 3 and 4

To accommodate revision of the lists, EPA has decided to subdivide List 4 into two parts. The previous List 4, representing inerts generally regarded as safe, has become List 4A, and a new List 4B has been created. List 4B is composed of inerts for which EPA has sufficient information to reasonably conclude that the current use patterns in pesticide products will not adversely affect public health and the environment. List 4B inerts in formulations proposed for new use patterns which cause significant increases in exposure will receive further scrutiny.

Two inerts, gammabutyrolactone and dioctyl sodium sulfosuccinate (DSS), are being removed from List 2 because EPA now has a complete human health effects data base indicating that they do not meet the criteria for List 1 and that their current use in pesticides should not adversely affect human health.

The placement of gammabutyrolactone on List 2 was based on structural analogy to the known oncogen, betabutyrolactone. Further review indicates this analogy is inappropriate. In addition, a review of toxicity data for gammabutyrolactone, including acute and subchronic data, developmental toxicity, mutagenicity, and oncogenicity indicates a low order of toxicity. Thus EPA has decided to remove gammabutyrolactone from List 2 and add it to List 4B because current use patterns pose minimal risk for human health. Because gammabutyrolactone has not been adequately tested for ecotoxicity, however, it is being placed on List 3 for these effects. EPA decided to list the inert on two lists to reflect the different degree of knowledge the Agency has about the inert's various effects. EPA considered it appropriate to place the inert on List 4B because it has sufficient information about human health effects, and to also place it on List 3 to reflect inadequate information concerning the ecotoxicity of this inert.

DSS was placed on List 2 because of developmental and reproductive toxicity concerns as well as ecotoxicity concern for surfactants. Data have now been reviewed for these effects, and indicate a low order of toxicity. Thus, DSS is added to List 4B for nonadverse effects

on human health. Because of limited ecotoxicity testing, however, DSS remains on List 3 (unknown toxicity) for these effects.

#### Deletions From All Lists

Further investigation of ethylene thiourea, carbon disulfide, and 1, 1-dimethylhydrazine (UDMH, the impurity in Alar, which is in Special Review), has revealed that these are only impurities, not intentionally added inerts. Furthermore, betabutyrolactone, benzene, dichlorvos, 1, 2-dimethylhydrazine, pentachlorophenol and sodium pentachlorophenate, dinitro-o-cresol, dinitrophenol, ethyl methyl phenylglycidate, formaldehyde and paraformaldehyde, hexachlorophene, mercury oleate, 2-nitropropane, 1, 2-dichloropropane, and thiourea are not now used as inerts in any pesticide products. Therefore, these chemicals have been removed from all lists of inert ingredients and are not currently cleared for use as inerts in any pesticide product. Thus, in the event a registrant or applicant proposes to include one of these chemicals as an inert ingredient in a pesticide product, EPA will consider the chemical a new inert.

Impurities in registered products are contaminants from the manufacturing process for the active ingredient, rather than intentionally added inert ingredients. The presence and toxicity of impurities is routinely evaluated during the normal Agency review processes. Impurities are identified in the product chemistry review, and would probably have been present, as part of the test material, during testing considered for support of the registration. Thus, it is not appropriate to subject impurities to the Inerts Strategy.

As discussed in the April 22, 1987 Notice, registrants with products containing List 1 inert ingredients must amend their product registrations by adding the following statement to the label:

This product contains the toxic inert ingredient (name of inert).

The wording should be placed in close proximity to the ingredients statement in a type size comparable to other front panel text. Since dimethylformamide and di-(2-ethylhexyl) adipate have been added to List 1, registrants of products containing these inerts are required to submit applications to amend their product labels not later than May 22, 1990. Products containing one or more of these inert ingredients released for shipment after May 22, 1991 must have the amended label in place.

Registrants of products containing dimethylformamide have already received a Data Call-In. All registrants have either voluntarily cancelled or committed to reformulate the product. Most reformulations have been received; a few time extensions were granted to allow for necessary testing of the reformulated product.

A Data Call-In for di-(2-ethylhexyl) adipate will be issued, at the same time as for diethylhexylphthalate, since the uses are similar and we expect to find them in the same types of products. Data Call-Ins for other original List 1 inerts were mailed in March 1989.

#### Stocks of Old Formulations

Registrants are encouraged to substitute or remove any List 1 or List 2 inert ingredient from their products by submitting a new Confidential Statement of Formula as a proposed amendment to the registration. The April 22, 1987 Policy statement did not address provisions governing the sale of stock of old formulations. If a registrant reformulates its product to replace a List 1 or List 2 inert ingredient with a less toxic inert, EPA has determined that some limit on continued sale of stocks of the old formulation is appropriate.

Once a registrant submits the revised formulation, registrants may manufacture only the old formulation, properly labeled as containing a toxic inert as described above, until EPA accepts the new formulation. Stocks of the old formulation, bearing the required labeling, may be released for shipment by the registrant for a period not to exceed twelve months from the date EPA accepts the new formulation. Products already in channels of trade (retailers, distributors, dealers) are not subject to this limitation.

Dated: October 10, 1989.

Douglas D. Campt,  
Director, Office of Pesticide Programs.  
[FR Doc. 89-27213 Filed 11-21-89; 8:45 am]  
BILLING CODE 6580-50-M

[FRL-3678-4]

**Proposed Settlement Under Section 122(h) of the Comprehensive Environmental Response, Compensation and Liability Act; United Scrap Lead Co.**

**AGENCY:** U.S. Environmental Protection Agency.

**ACTION:** Request for public comment.



**SUMMARY:** In accordance with the requirements of section 122(i)(1) of the Comprehensive Environmental Response, Compensation and Liability Act, as amended (CERCLA), notice is hereby given of a proposed settlement under section 122(h) concerning the United Scrap Lead Co. Site in Troy, Ohio. The proposed settlement requires 52 potentially responsible parties to pay all of the \$421,422.85 in costs incurred by U.S. EPA in performing an Immediate Removal Action at the Site. The proposed settlement would resolve the cost-recovery case related to this response action taken by U.S. EPA at the Site.

**DATE:** Comments must be provided on or before December 22, 1989.

**ADDRESS:** Comments should be addressed to the U.S. Environmental Protection Agency, Region V, 230 South Dearborn Street, Chicago, Illinois, 60604, and should refer to: In the Matter of: United Scrap Lead Co.

**FOR FURTHER INFORMATION CONTACT:** T. Leverett Nelson, U.S. EPA, Office of Regional Counsel, 5CS-TUB-3, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 886-6666.

Notice of section 122(h) Cost-Recovery Settlement: In accordance with section 122(i)(1) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, notice is hereby given that on August 28, 1989, a proposed administrative settlement was agreed to by 52 potentially responsible parties (PRPs). The proposed settlement requires these PRPs to pay all of the \$421,422.85 in costs incurred by U.S. EPA in performing an Immediate Removal Action at the United Scrap Lead Site located at South County Road 25A in Troy, Ohio. The Emergency Removal Action was conducted from November 1985 to August 1986.

U.S. EPA is entering into this agreement under the authority of sections 122(h) and 107 of CERCLA. Section 122(h) authorizes administrative settlement of a claim under section 107. Where total response costs incurred by the United States for the facility concerned exceed \$500,000 (excluding interest), the Attorney General of the United States must also approve the Settlement. In this case, response costs incurred thus far exceed \$1.3 million. Response costs also continue to be incurred. Accordingly, the Attorney General has approved this Settlement.

Under the terms of the Settlement, the 52 PRPs will pay the full amount within 30 days of the effective date of the

agreement. In return, the U.S. EPA covenants not to sue these PRPs for those costs. U.S. EPA may pursue non-settling PRPs for the remaining costs at any time; settling PRPs may not be pursued for future costs for 1 year from the effective date of the agreement.

The Environmental Protection Agency will receive for a period of thirty (30) days from the date of this publication comments relating to the proposed settlement agreement.

A copy of the proposed administrative settlement agreement may be obtained in person or by mail from the Office of Regional Counsel, United States Environmental Protection Agency, Region V, 230 South Dearborn Street, Chicago, Illinois 60604. Additional background information relating to the Settlement is available for review at this address.

**Authority:** The Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. 9601-9675.

Dated: September 29, 1989.

Valdas V. Adamkus,  
Regional Administrator.

[FR Doc. 89-27472 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M

## FEDERAL COMMUNICATIONS COMMISSION

### Applications for Consolidated Hearing

1. The Commission has before it the following mutually exclusive applications for 1 new AM station and 3 new FM stations:

#### I.

Applicant; city and state	File No.	MM Docket No.
A. Donald P. Harris d/b/a, Desert Broadcasters; Rosamond, CA.	BP-870328AH	89-493
B. Robert Burdette & Associates; West Covina, CA.	BP-870506AE	
C. Janice L. O'Brien d/b/a, San Marcos Radio; San Marcos, CA.	BP-870722AE	
D. KDOL Broadcasting Corp.; Rosamond, CA.	BP-870722AH	

#### Issue Heading and Applicants

- 307(b), all applicants
- Contingent Comparative, all applicants
- Ultimate, all applicants

#### II.

Applicant; city and state	File No.	MM Docket No.
A. Lonnie W. Hutto d/b/a, IBC Broadcasting; Alexandria, LA.	BPH-871127MA	89-483
B. New South Communications, Inc.; Alexandria, LA.	BPH-871201MD	
C. Alfred T. Moore, Jr., & William D. Hendrix, Jr., d/b/a, Central Broadcasting, Co.; Alexandria, LA.	BPH-871203ND	
D. A.E. Fryar, Jr. d/b/a, Fryar Communications; Alexandria, LA.	BPH-871203NG	

#### Issue Heading and Applicants

- Comparative, A-D
- Ultimate, A-D

#### III.

Applicant; city and state	File No.	MM Docket No.
A. Harold McEwen; Lawton, OK.	BPH-870827MA	89-505
B. Southwest Educational Media Foundation of Texas, Inc.; Lawton, OK.	BPED-870827MH	
C. Oklahoma Radio Limited Partnership; Lawton, OK.	BPH-870827MU	
D. American Indian Broadcast Group, Inc.; Lawton, OK.	BPH-870827NG	
E. Arthur Patrick; Lawton, OK.	BPH-870827NT	

#### Issue Heading and Applicants

- Air hazard, B, C
- (See Appendix), C
- (See Appendix), C
- (See Appendix), C
- (See Appendix), C
- Comparative, all applicants
- Ultimate, all applicants

#### IV.

Applicant; city and state	File No.	MM Docket No.
A. Herrera Broadcasting Partnership; Merced, CA.	BPH-880301MU	89-506
B. Great Scott Broadcasting; Merced, CA.	BPH-880301MY	



## Issue Heading and Applicants

1. See Appendix, A
2. See Appendix, A
3. See Appendix, A
4. Air Hazard, A
5. Comparative, all
6. Ultimate, all

2. Pursuant to section 309(e) of the Communications Act of 1934, as amended, the above applications have been designated for hearing in a consolidated proceeding upon the issues whose headings are set forth below. The text of each of these issues has been standardized and is set forth in its entirety under the corresponding headings at 51 FR 19347, May 29, 1986. The letter shown before each applicant's name, above, is used below to signify whether the issue in question applies to that particular applicant.

3. If there is any non-standardized issue in this proceeding, the full text of the issue and the applicants to which it applies are set forth in an appendix to this notice. A copy of the complete HDO in this proceeding is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington DC. The complete text may also be purchased from the Commission's duplicating contractor, International Transcription Services, Inc., 2100 M Street, NW., Washington, DC 20037. (Telephone (202) 857-3800.)

W. Jan Gay,

Assistant Chief, Audio Services Division,  
Mass Media Bureau.

## Appendix (Lawton, Oklahoma).

2. To determine whether Sonrise Management Services, Inc. is an undisclosed party to the application of C (ORLP).

3. To determine whether C (ORLP)'s organizational structure is a sham.

4. To determine whether C (ORLP) violated Section 1.65 of the Commission's Rules, and/or lacked candor, by failing to report: (1) the designation of character issues against another applicant in which one of its partners has an ownership interest; and (2) the dismissal of such applications with unresolved character issues pending.

5. To determine from the evidence adduced pursuant to Issues 2 through 4 above, whether C (ORLP) possesses the basic qualifications to be a licensee of the facilities sought herein.

## Appendix (Merced, California).

1. To determine whether Sonrise Management Services, Inc. is an undisclosed party-in-interest to the application of Herrera Broadcasting Partnership.

2. To determine whether Herrera Broadcasting Partnership's organizational structure is a sham.

3. To determine, based on the evidence adduced pursuant to issues 1 and 2 above, whether Herrera Broadcasting Partnership possesses the basic qualifications to be a Commission licensee.

[FR Doc. 89-27372 Filed 11-21-89; 8:45 am]

BILLING CODE 6712-01-M

## FEDERAL ELECTION COMMISSION

[Notice 1989-17]

## Filing Dates for Texas Special Runoff Election (18.C.D.)

**AGENCY:** Federal Election Commission.  
**ACTION:** Notice of filing dates for Texas Special Runoff Election.

**SUMMARY:** Texas has scheduled a special runoff election on December 9, 1989, in the 18th Congressional District to fill the seat that was held by the late Representative Mickey Leland.

**FOR FURTHER INFORMATION CONTACT:** Ms. Bobby Werfel, Public Information Office, 999 E Street, NW., Washington, DC 20463. Telephone: (202) 376-3120; Toll Free (800) 424-9530.

**SUPPLEMENTARY INFORMATION:** Principal campaign committees of candidates who participate in the Texas Special Runoff Election must file reports according to the schedule in the following chart. Party committees and PACs that make contributions or expenditures in connection with the Special Runoff Election during the coverage dates listed in the charts must file the appropriate reports. Monthly filers, however, do not file Special Pre- and Post-election reports.

## CALENDAR OF REPORTING DATES FOR TEXAS SPECIAL RUNOFF ELECTION

[All Committees involved in the 12/9/89 Election Must File]

Report	Period covered <sup>1</sup>	Reg./cert. mailing date <sup>2</sup>	Filing date
Pre-Election.....	10/19/89-11/19/89	11/24/89	11/27/89
Post-Election and Year-End <sup>3</sup> ...	11/20/89-12/31/89	01/08/90	01/08/90

<sup>1</sup> The period begins with the close of the last report filed by the committee. If the committee has filed no previous reports, the period begins with the date of the committee's first activity.

<sup>2</sup> Reports sent by registered or certified mail must be postmarked by the mailing date. Otherwise, they must be received by the filing date.

<sup>3</sup> The Commission recommends that committees file a consolidated Post-Election and Year-End report by the filing date of the Post-Election report. Alternately, in lieu of a consolidated report, committees must file two separate reports: Post-Election, by 1/8/90; and the Year-End, by 1/31/90, which would cover 12/30/89 through 12/31/89.

Dated: November 15, 1989.

Danny L. McDonald,

Chairman, Federal Election Commission.

[FR Doc. 89-27377 Filed 11-21-89; 8:45 am]

BILLING CODE 6715-01-M

## FEDERAL LABOR RELATIONS AUTHORITY

## Senior Executive Service; Performance Review Board

**AGENCY:** Federal Labor Relations Authority.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given of the names of the Performance Review Board.

**DATE:** November 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Theresa J. Jackson, Director of Personnel and EEO, Federal Labor Relations Authority, 500 C St., SW., Washington, DC 20424, (202) 382-0751.

**SUPPLEMENTARY INFORMATION:** Section 4314(c) (1) through (5) of title 5, U.S.C., requires each agency to establish, in accordance with regulations prescribed by the Office of Personnel Management, one or more performance review boards. The board shall review and evaluate the initial appraisal of a senior executive's performance by the supervisor, along with any recommendations, to the appointing authority relative to the performance of the senior executive.

The following persons will serve on the FLRA's Performance Review Board: Cynthia A. Metzler, Office of the Acting Chairman, FLRA

Brenda M. Robinson, Office of General Counsel, FLRA

Johnny J. Butler, Equal Employment Opportunity Commission

Paul D. Mahoney, Merit Systems Protection Board

Peter J. Basso, Office of Management and Budget

Theresa J. Jackson,  
Director of Personnel and EEO.

[FR Doc. 89-27466 Filed 11-21-89; 8:45 am]

BILLING CODE 6727-01-M



## FEDERAL RESERVE SYSTEM

**Bankers Trust New York Corp., et al.; Notice of Applications To Engage de Novo in Permissible Nonbanking Activities**

The companies listed in this notice have filed an application under § 225.23(a)(1) of the Board's Regulation Y (12 CFR 225.23(a)(1)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to commence or to engage *de novo*, either directly or through a subsidiary, in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies. Unless otherwise noted, such activities will be conducted throughout the United States.

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Unless otherwise noted, comments regarding the applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than December 6, 1989.

**A. Federal Reserve Bank of New York** (William L. Rutledge, Vice President) 33 Liberty Street, New York, New York 10045:

1. **Bankers Trust New York Corporation**, New York, New York; to engage *de novo* through its subsidiary, BT Securities Corporation, New York, New York, in acting as investment financial advisor to the extent set forth in § 225.25(b)(4); providing management consulting advice to nonaffiliated bank and nonbank depository institutions,

subject to conditions set forth in § 225.25(b)(11); and providing advisory services in connection with merger, acquisition/divestiture and financing transactions, valuation services, rendering fairness opinions and providing ancillary services or functions incidental to the foregoing nonaffiliated financial and nonfinancial institutions. Applicant has made commitments identical to those accepted by the Board in *Signet Banking Corporation* (73 *Federal Reserve Bulletin* 59 (1987)).

**B. Federal Reserve Bank of Chicago** (David S. Epstein, Vice President) 230 South LaSalle Street, Chicago, Illinois 60690:

1. **Fidelity Financial Corporation of Michigan**, Birmingham, Michigan; to engage in making and acquiring loans and other extensions of credit pursuant to § 225.25(b)(1) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, November 16, 1989.

Jennifer J. Johnson,

*Associate Secretary of the Board.*

[FR Doc. 89-27406 Filed 11-21-89; 8:45 am]

BILLING CODE 6210-01-M

**Fed One Corp., et al.; Formations of, Acquisitions by, and Mergers of Bank Holding Companies; and Acquisitions of Nonbanking Companies**

The companies listed in this notice have applied under § 225.14 of the Board's Regulation Y (12 CFR 225.14) for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) to become a bank holding company or to acquire voting securities of a bank or bank holding company. The listed companies have also applied under § 225.23(a)(2) of Regulation Y (12 CFR 225.23(a)(2)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to acquire or control voting securities or assets of a company engaged in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies, or to engage in such an activity. Unless otherwise noted, these activities will be conducted throughout the United States.

The applications are available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the

proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than December 6, 1989.

**A. Federal Reserve Bank of Chicago** (David S. Epstein, Vice President) 230 South LaSalle Street, Chicago, Illinois 60690:

1. **Fed One Corp.**, Griswold, Iowa; to become a bank holding company by acquiring 100 percent of the voting shares of Griswold State Bancshares, Inc., Griswold, Iowa, and thereby indirectly acquire Griswold State Bank, Griswold, Iowa.

In connection with this application, Applicant also proposes to acquire Cass County Insurance Agency, Inc., Griswold, Iowa, and thereby engage in insurance agency and underwriting activities in small towns with a population of less than 5,000 pursuant to § 225.25(b)(iii)(A) of the Board's Regulation Y.

**B. Federal Reserve Bank of Kansas City** (Thomas M. Hoenig, Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

1. **Exchange Bankshares Corporation of Kansas**, Atchison, Kansas; to become a bank holding company by acquiring 100 percent of the voting shares of Exchange National Bank and Trust Company of Atchison, Kansas.

In connection with this application, Applicant also proposes to acquire Bankers Exchange Life Insurance Company, Atchison, Kansas, and thereby engage in acting as principal, agent, or broker for credit insurance—insurance that is directly related to extensions of credit by its subsidiary bank and limited to ensuring the repayment of the outstanding balance due on the extensions of credit pursuant to § 225.25(b)(8)(i) of the Board's Regulation Y.



Board of Governors of the Federal Reserve System, November 16, 1989.

Jennifer J. Johnson

Associate Secretary of the Board.

[FR Doc. 89-27407 Filed 11-21-89; 8:45 am]

BILLING CODE 6210-01-M

### Lincoln Financial Corp., et al.; Formations of; Acquisitions by; and Mergers of Bank Holding Companies

The companies listed in this notice have applied for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) and § 225.14 of the Board's Regulation Y (12 CFR 225.14) to become a bank holding company or to acquire a bank or bank holding company. The factors that are considered in acting on the applications are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank or to the offices of the Board of Governors. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Unless otherwise noted, comments regarding each of these applications must be received not later than December 14, 1989.

**A. Federal Reserve Bank of Chicago**  
(David S. Epstein, Vice President) 230 South LaSalle Street, Chicago, Illinois 60690:

1. *Lincoln Financial Corporation*, Fort Wayne, Indiana; to acquire 100 percent of the voting shares of PTC Financial Corporation, Peru, Indiana, and thereby

indirectly acquire The Peru Trust Company, Peru, Indiana.

**B. Federal Reserve Bank of Dallas** (W. Arthur Tribble, Vice President) 400 South Akard Street, Dallas, Texas 75222:

1. *M & F Financial Corp.*, Wilmington, Delaware; to become a bank holding company by acquiring 100 percent of the voting shares of Texas Bank, Brownwood, Texas, and Texas Bank, Weatherford, Texas.

**C. Federal Reserve Bank of San Francisco** (Harry W. Green, Vice President) 101 Market Street, San Francisco, California 94105:

1. *Wells Fargo & Company*, San Francisco, California; to acquire 100 percent of the voting shares of Torrey Pincess Group, Solano Beach, California, and thereby indirectly acquire Torrey Pines Bank, Solano Beach, California.

Board of Governors of the Federal Reserve System, November 16, 1989.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 89-27408 Filed 11-21-89; 8:45 am]

BILLING CODE 6210-01-M

### Change in Bank Control Notice; Acquisition of Shares of Banks or Bank Holding Companies

The notificant listed below has applied under the Change in Bank Control Act (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire a bank or bank holding company. The factors that are considered in acting on notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. Once the notices have been accepted for processing, they will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the offices of the Board of

Governors. Comments must be received not later than December 6, 1989.

**A. Federal Reserve Bank of Dallas** (W. Arthur Tribble, Vice President) 400 South Akard Street, Dallas, Texas 75222:

1. *Thomas Little Whaley*, Marshall, Texas; to acquire 2.74 percent of the voting shares of Firstshares of Texas, Inc., Marshall, Texas, and thereby indirectly acquire First National Bank of Marshall, Marshall, Texas.

Board of Governors of the Federal Reserve System, November 16, 1989.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 89-27409 Filed 11-21-89; 8:45 am]

BILLING CODE 6210-01-M

### FEDERAL TRADE COMMISSION

#### Granting of Request for Early Termination of the Waiting Period Under the Premerger Notification Rules

Section 7A of the Clayton Act, 15 U.S.C. 18a, as added by title II of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, requires persons contemplating certain mergers or acquisitions to give the Federal Trade Commission and the Assistant Attorney General advance notice and to wait designated periods before consummation of such plans. Section 7A(b)(2) of the Act permits the agencies, in individual cases, to terminate this waiting period prior to its expiration and requires that notice of this action be published in the *Federal Register*.

The following transactions were granted early termination of the waiting period provided by law and the premerger notification rules. The grants were made by the Federal Trade Commission and the Assistant Attorney General for the Antitrust Division of the Department of Justice. Neither agency intends to take any action with respect to these proposed acquisitions during the applicable waiting period:

#### TRANSACTIONS GRANTED EARLY TERMINATION BETWEEN: 10-30-89 AND 11-09-89

Name of Acquiring Person, Name of Acquired Person, Name of Acquired Entity	PMN No.	Date terminated
General Electric Company, PACCAR Inc., Raillease, Inc.	90-0103	10/30/89
Peter V. Ueberroth, John H. Magoon, Jr., HAL, Inc.	90-0167	10/30/89
Rollance E. Olson, Brierley Investments Limited, Steego Parts Corporation and AEL Enterprises, Inc.	90-0043	10/31/89
U S West, Inc., Financial Security Assurance Holdings Ltd., Financial Security Assurance Holdings Ltd.	90-0048	10/31/89
Meggitt PLC, United Scientific Holdings PLC, United Scientific Holdings PLC	90-0052	10/31/89
Medical Care International, Inc., MediVision, Inc., MediVision, Inc.	90-0097	10/31/89
Gannett Co., Inc., Saratoga Partners, L.P., AMNI America, Inc.	89-2769	11/01/89
The Toro Company, Outboard Marine Corporation, Lawn-Boy, Inc.	90-0020	11/01/89
Thomas & Betts Corporation, C.W. Holmberg, Jr., Holmberg Electronics Corporation	90-0045	11/03/89
American Exploration Company, Oryx Energy Company, Sun Operating Limited Partnership	90-0122	11/03/89
Communications Satellite Corporation, Sidney Shlenker, Denver Nuggets, Incorporated	90-0174	11/03/89
Derby International Corporation S.A., Peugeot S.A., Peugeot Cycles S.A.	90-0178	11/03/89
John K. Cantrell, Mark B. Herman, Universal Guaranty Life Insurance Company and Alliance	90-0189	11/03/89



## TRANSACTIONS GRANTED EARLY TERMINATION BETWEEN: 10-30-89 AND 11-09-89—Continued

Name of Acquiring Person, Name of Acquired Person, Name of Acquired Entity	PMN No.	Date terminated
Associated Insurance Companies, Inc., American General Corporation, American General Group Insurance Company of California.....	90-0194	11/03/89
Bell Atlantic Corporation, Control Data Corporation, Third Party Maintenance.....	90-0196	11/03/89
The Citizens and Southern Corporation, Security Pacific Corporation, Security Pacific Business Credit, Inc.....	90-0222	11/03/89
Jeffery G. Banks and Karen A. Banks, Saratoga Partners, L.P., AMNI America, Inc.....	90-0227	11/03/89
Roger Marriott, Glaxo Holdings p.l.c., Glaxo Holdings p.l.c.....	90-0230	11/03/89
Barry Forman, Glaxo Holdings PLC, Glaxo Holdings PLC.....	90-0231	11/03/89
Edisto Resources Corporation, NRM Energy Company, L.P., NRM Energy Company, L.P.....	90-0242	11/03/89
Fertilizer Industries, Inc., CNC Chemicals, Inc., CNC Chemicals, Inc.....	89-2518	11/06/89
Tribune Company, Sears, Roebuck and Co., Sears, Roebuck and Co.....	90-0087	11/07/89
Jaqui E. Safra, Franklin N. Groves, Western States Minerals Corporation.....	90-0088	11/07/89
Gaylord Container Corporation, Boise Cascade Corporation, Boise Cascade Corporation.....	90-0101	11/07/89
Louis J. Appell Residuary Trust, Canadian Pacific Limited, Syracuse China Corporation.....	90-0106	11/07/89
Engelhard Corporation, Canadian Pacific Limited, Processed Minerals Incorporated.....	90-0118	11/07/89
CMB Packaging S.A., Aluminum Company of America, GPS, Inc.....	90-0125	11/07/89
CMB Packaging S.A., CMB Packaging S.A., Genesis Packaging Systems.....	90-0126	11/07/89
Compagnie Parisienne de Chauffage Urbain, Trigen Energy Corporation, Trigen Energy Corporation.....	90-0156	11/07/89
Lyonnaise des Eaux, Trigen Energy Corporation, Trigen Energy Corporation.....	90-0157	11/07/89
Giant Group, Ltd., Rally's, Inc., Rally's, Inc.....	90-0166	11/07/89
United Cities Gas Company, 3555 Investments, L. P., Union Gas System, Inc.....	90-0183	11/07/89
Texaco Inc., TRT Energy Holdings, Inc., Tana Production Corporation.....	90-0206	11/07/89
Texaco Inc., Reese M. Rowling, RMR, Inc.....	90-0207	11/07/89
Texaco Inc., William E. Colson, William E. Colson.....	90-0208	11/07/89
Toyoda Machine Works, Ltd., Toyoda TRW Automotive, Inc., Toyoda TRW Automotive, Inc.....	90-0096	11/08/89
Crescott, Inc., Dataproducts Corporation, Dataproducts Corporation.....	90-0216	11/08/89
Charles S. Meyer, Newell Co., Anchor Hocking Corporation, Newell Operating Company.....	90-0072	11/09/89
Barnes Hospital, Andrew J. Signorelli, Faith Hospital Association.....	90-0121	11/09/89
Cadence Design Systems, Inc., Prabhakar Goel, Gateway Design Automation Corporation.....	90-0135	11/09/89
Prabhakar Goel, Cadence Design Systems, Inc., Cadence Design Systems, Inc.....	90-0136	11/09/89
BET Public Limited Company, Arlene Zacks Gaitz, Service Control Corporation.....	90-0138	11/09/89
Compagnie des Machines Bull, Zenith Electronics Corporation, 16 Zenith Entities.....	90-0150	11/09/89
LAC Minerals Ltd., Alan Bond, Bond International Gold, Inc.....	90-0153	11/09/89
Falcon Classic Cable Income Properties, L.P., Jack Kent Cooke, Cooke Cablevision Inc.....	90-0160	11/09/89
Evered plc, Richard R. Allen, Sr., D.R. Allen & Son, Inc.....	90-0177	11/09/89

## FOR FURTHER INFORMATION CONTACT:

Sandra M. Peay, Federal Trade Commission, Contact Representative, Premerger Notification Office, Bureau of Competition, Room 303, Washington, DC 20580, (202) 326-3100.

By Direction of the Commission.

Donald S. Clark,

Secretary.

[FR Doc. 89-27451 Filed 11-21-89; 8:45 am]

BILLING CODE 6750-01-M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

## Centers for Disease Control

## Fiscal Year 1990 Draft Application Instructions for Minority Community-Based Human Immunodeficiency Virus (HIV) Prevention Projects: Meeting

The Center for Prevention Services (CPS) of the Centers for Disease Control (CDC) will convene a meeting to discuss the Fiscal Year 1990 draft application instructions for minority community-based human immunodeficiency virus (HIV) prevention projects.

Time and Date: 9 a.m.-2 p.m., Monday, December 4, 1989.

Place: CPS Conference Room, CDC, Freeway Office Park, 1644 Tullie Circle, NE, Atlanta, GA 30329.

Status: Open to the public, limited only by the space available.

Contact Person for More Information: Ms. Freda Weaver, Resource Analysis, Office of the Director, CPS, CDC, Atlanta, GA 30333, Telephone: Commercial: (404) 639-1823; FTS: 236-1823.

Dated: November 16, 1989.

Elvin Hilyer,

Associate Director for Policy Coordination, Centers for Disease Control.

[FR Doc. 89-27412 Filed 11-21-89; 8:45 am]

BILLING CODE 4160-18-M

## Food and Drug Administration

[Docket No. 89N-0488]

## Drug Export; ADALAT® PA-10 (Nifedipine) 10-MG Tablets

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that Miles Pharmaceutical Division, Miles, Inc., has filed an application requesting approval for the export of the human drug Adalat® PA-10 (nifedipine) 10-milligram (mg) tablets to Canada.

ADDRESSES: Relevant information on this application may be directed to the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857, and to the contact person identified below. Any future inquiries concerning the export of human drugs under the Drug Export Amendments Act of 1986 should also be directed to the contact person.

## FOR FURTHER INFORMATION CONTACT:

Mary F. Cooper, Division of Drug Labeling Compliance (HFD-313), Center for Drug Evaluation and Research, Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-295-8073.

SUPPLEMENTARY INFORMATION: The drug export provisions in section 802 of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 382) provide that FDA may approve applications for the export of drugs that are not currently approved in the United States. Section 802(b)(3)(B) of the act sets forth the requirements that must be met in an application for approval. Section 802(b)(3)(C) of the act requires that the agency review the application within 30 days of its filing to determine whether the requirements of section 802(b)(3)(B) have been satisfied. Section 802(b)(3)(A) of the act requires that the agency



publish a notice in the **Federal Register** within 10 days of the filing of an application for export to facilitate public participation in its review of the application. To meet this requirement, the agency is providing notice that Miles Pharmaceutical Division, Miles, Inc., 400 Morgan Lane, West Haven, CT 06516, has filed an application requesting approval for the export of the drug Adalat® PA-10 (nifedipine) 10-mg tablets, to Canada. This product is indicated in the management of moderate to severe hypertension when patients have failed to respond adequately to a combination of a diuretic and a beta-blocker. The application was received and filed in the Center for Drug Evaluation and Research on October 23, 1989, which shall be considered the filing date for purposes of the act.

Interested persons may submit relevant information on the application to the Dockets Management Branch (address above) in two copies (except that individuals may submit single copies) and identified with the docket number found in brackets in the heading of this document. These submissions may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

The agency encourages any person who submits relevant information on the application to do so by December 4, 1989, and to provide an additional copy of the submission directly to the contact person identified above, to facilitate consideration of the information during the 30-day review period.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (sec. 302 (21 U.S.C. 382)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Center for Drug Evaluation and Research (21 CFR 5.44).

Dated: November 14, 1989.

**Sammie R. Young,**  
Acting Director, Office of Compliance, Center  
for Drug Evaluation and Research.

[FR Doc. 89-27438 Filed 11-21-89; 8:45 am]

BILLING CODE 4160-01-M

[Docket No. 89N-0489]

#### **Drug Export, Surventa® (Beractant, Surfactant TA)**

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Notice.

**SUMMARY:** The Food and Drug Administration (FDA) is announcing that Ross Laboratories has filed an application requesting approval for the export of the human drug Surventa®

(beractant, Surfactant TA) to Italy and for further export to the Federal Republic of Germany.

**ADDRESSES:** Relevant information on this application may be directed to the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857, and to the contact person identified below. Any future inquiries concerning the export of human drugs under the Drug Export Amendments Act of 1986 should also be directed to the contact person.

**FOR FURTHER INFORMATION CONTACT:** Mary F. Cooper, Division of Drug Labeling Compliance (HFD-313), Center for Drug Evaluation and Research, Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-295-8073.

**SUPPLEMENTARY INFORMATION:** The drug export provisions in section 802 of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 382) provide that FDA may approve applications for the export of drugs that are not currently approved in the United States. Section 802(b)(3)(B) of the act sets forth the requirements that must be met in an application for approval. Section 802(b)(3)(C) of the act requires that the agency review the application within 30 days of its filing to determine whether the requirements of section 802(b)(3)(B) have been satisfied. Section 802(b)(3)(A) of the act requires that the agency publish a notice in the **Federal Register** within 10 days of the filing of an application for export to facilitate public participation in its review of the application. To meet this requirement, the agency is providing notice that Ross Laboratories, 625 Cleveland Ave., Columbus, OH 43215, has filed an application requesting approval for the export of the drug Surventa® (beractant, Surfactant TA), to Italy and for further export to the Federal Republic of Germany. This drug is indicated for use in acute respiratory distress syndrome in neonates. The application was received and filed in the Center for Drug Evaluation and Research on September 14, 1989, which shall be considered the filing date for purposes of the act.

Interested persons may submit relevant information on the application to the Dockets Management Branch (address above) in two copies (except that individuals may submit single copies) and identified with the docket number found in brackets in the heading of this document. These submissions may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

The agency encourages any person who submits relevant information on the application to do so by December 4, 1989, and to provide an additional copy of the submission directly to the contact person identified above, to facilitate consideration of the information during the 30-day review period.

This notice is issued under the Federal Food, Drug, and Cosmetic Act (sec. 303 (21 U.S.C. 382)) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Center for Drug Evaluation and Research (21 CFR 5.44).

Dated: November 14, 1989.

**Sammie R. Young,**  
Acting Director, Office of Compliance, Center  
for Drug Evaluation and Research.

[FR Doc. 89-27439 Filed 11-21-89; 8:45 am]

BILLING CODE 4160-01-M

#### **Health Care Financing Administration**

[OACT-028-N]

RIN 0938-AE20

#### **Medicare Program; Part A Premium for the Uninsured Aged for 1990**

**AGENCY:** Health Care Financing Administration (HCFA), HHS.

**ACTION:** Notice.

**SUMMARY:** This notice announces the hospital insurance premium for the uninsured aged for calendar year 1990 under Medicare's hospital insurance program (Part A). The monthly Medicare Part A premium for the 12 months beginning January 1, 1990 for individuals who are not insured under the Social Security or Railroad Retirement Acts and do not otherwise meet the requirements for entitlement to Part A is \$175. Section 1818(d) of the Social Security Act specifies the method to be used to determine this amount.

**EFFECTIVE DATE:** January 1, 1990.

**FOR FURTHER INFORMATION CONTACT:** Barbara S. Klees, (301) 966-6388.

**SUPPLEMENTARY INFORMATION:**

#### **I. Background**

Section 1818 of the Social Security Act (the Act) provides for voluntary enrollment in the Medicare hospital insurance program (Medicare Part A), subject to payment of a monthly premium, of certain persons age 65 and older who are uninsured for social security or railroad retirement benefits and do not otherwise meet the requirements for entitlement to Part A. (Persons insured under the Social Security or Railroad Retirement Acts



need not pay premiums for hospital insurance.)

Section 1818(d)(2) of the Act, as amended by section 103 of the Medicare Catastrophic Act of 1988 (Pub. L. 100-360), requires the Secretary to determine and publish, during September of each calendar year, the amount of the monthly premium for the following calendar year for persons who voluntarily enroll in Medicare Part A.

Section 1818(d) of the Act, as amended by section 103 of Public Law 100-360, requires the Secretary to estimate, on an average per capita basis, the amount to be paid from the Federal Hospital Insurance Trust Fund for services performed and for related administrative costs incurred in the following year with respect to individuals age 65 and over who will be entitled to benefits under Part A. The Secretary must then, during September of each year, determine the monthly actuarial rate (the per capita amount estimated above divided by 12) and publish the dollar amount to be applicable for the monthly premium in the succeeding year. If the premium is not a multiple of \$1.00, the premium is rounded to the nearest multiple of \$1.00 (or if it is a multiple of 50 cents but not of \$1.00, it is rounded to the next highest \$1.00). The first premium under this new method was \$156 and was effective January 1989. (See 53 FR 45161; November 8, 1988.)

## II. Premium Amount for 1990

Under the authority of section 1818(d)(2) of the Act (42 U.S.C. 1395i-2(d)(2)), the Secretary has determined that the monthly Medicare Part A hospital insurance premium for the uninsured aged for the 12 months beginning January 1, 1990 is \$175. This premium amount is based on the law in effect at the time we were required to make this determination. We recognize that Congress is considering amendments to the Medicare provisions in the law and that, if enacted, these amendments may affect the method of computation, estimated costs, or other amounts upon which this premium determination was made.

## III. Statement of Actuarial Assumptions and Bases Employed in Determining the Monthly Premium Rate

As discussed in section I of this notice, the monthly premium for the uninsured aged for 1990 is equal to the estimated monthly actuarial rate for 1990 rounded to the nearest multiple of \$1. The monthly actuarial rate is defined to be one-twelfth of the average per capita amount that the Secretary

estimates will be paid from the Federal Hospital Insurance Trust Fund for services performed and related administrative costs incurred in 1990 for individuals age 65 and over who will be entitled to benefits under the hospital insurance program. Thus, the number of individuals age 65 and over who will be entitled to hospital insurance benefits and the costs incurred on behalf of these beneficiaries must be projected to determine the premium rate.

The principal steps involved in projecting the future costs of the hospital insurance program are (a) establishing the present cost of services provided to beneficiaries, by type of service, to serve as a projection base; (b) projecting increases in payment amounts for each of the various service types; and (c) projecting increases in administrative costs. Establishing historical Part A enrollment and projecting future enrollment, by type of beneficiary, is part of this process.

We have completed all of the above steps, basing our projections for 1990 on (a) current historical data and (b) projection assumptions from the Mid-session Review of the President's Fiscal Year 1990 Budget. It is estimated that in calendar year 1990, 30.081 million people age 65 and over will be entitled to Part A benefits (without premium payment), and that these individuals will, in 1990, incur \$63.278 billion of benefits for services performed and related administrative costs. Thus, the estimated monthly average per capita amount is \$175.30 and the monthly premium is \$175.

## IV. Costs to Beneficiaries

The 1990 Part A premium is 12 percent higher than the \$156 monthly premium amount for the 12-month period beginning January 1, 1989. This increase results from the recalculation of the monthly actuarial rate described above.

The estimated costs of this increase to the approximately 19 thousand enrollees who do not otherwise meet the requirements for entitlement to hospital insurance will be about \$4.33 million.

## V. Regulatory Impact Statement

This notice merely announces amounts required by legislation. This notice is not a proposed rule or a final rule issued after a proposal, and does not alter any regulation or policy. Therefore, we have determined, and the Secretary certifies, that no analyses are required under Executive Order 12291, the Regulatory Flexibility Act (5 U.S.C.

601 through 612) or section 1102(b) of the Act.

**Authority:** Section 1818(d)(2) of the Social Security Act (42 U.S.C. 1395i-2(d)(2)).

(Catalog of Federal Domestic Assistance Program No. 13.773, Medicare—Hospital Insurance)

Dated: September 26, 1989.

**Louis B. Hays,**

*Acting Administrator, Health Care Financing Administration.*

Approved: October 26, 1989.

**Louis W. Sullivan,**

*Secretary.*

[FR Doc. 89-27378 Filed 11-21-89; 8:45 am]

BILLING CODE 4120-01-M

## National Institutes of Health

### National Eye Institute; Meeting of the Vision Research Program Planning Subcommittee of the National Advisory Eye Council

Pursuant to Public Law 92-463, notice is hereby given of a meeting of the Vision Research Program Planning Subcommittee of the National Advisory Eye Council. The meeting will be held on December 12, 1989, in Building 16—The Stone House, National Institutes of Health, Bethesda, Maryland.

This entire meeting will be open to the public from 9 a.m. until 5 p.m. to discuss current policy issues and provide input and guidance to the Vision Research Program Planning Subcommittee concerning the development of Institute policies and programs. Attendance by the public will be limited to space available.

Ms. Lois DeNinno, Committee Management Officer, National Eye Institute, Building 31, room 6A08, National Institutes of Health, Bethesda, Maryland 20892, (301) 496-9110, will provide a summary of the meeting, roster of committee members, and substantive program information upon request.

(Catalog of Federal Domestic Assistance Programs, Nos. 13.867, Retinal and Choroidal Diseases Research; 13.868, Anterior Segment Diseases Research; 13.871, Strabismus, Amblyopia, and Visual Processing Research; National Institutes of Health.)

Dated: November 15, 1989.

**Betty J. Beveridge,**

*Committee Management Officer, NIH.*

[FR Doc. 89-27437 Filed 11-21-89; 8:45 am]

BILLING CODE 4140-01-M



## DEPARTMENT OF THE INTERIOR

## Bureau of Land Management

[OR-942-00-4730-12: GPO-058]

Filing of Plats of Survey: Oregon/  
WashingtonAGENCY: Bureau of Land Management,  
Interior.

ACTION: Notice.

**SUMMARY:** The plats of survey of the following described lands are scheduled to be officially filed in the Oregon State Office, Portland, Oregon, thirty (30) calendar days from the date of this publication.

## Willamette Meridian

## OREGON

T. 39 S., R. 13 E., accepted 10/27/89

T. 38 S., R. 13 E., accepted 10/27/89

T. 34 S., R. 4 W., accepted 11/3/89

If protests against a survey, as shown on any of the above plat(s), are received prior to the date of official filing, the filing will be stayed pending consideration of the protest(s). A plat will not be officially filed until the day after all protests have been dismissed and become final or appeals from the dismissal affirmed.

The plat(s) will be placed in the open files of the Oregon State Office, Bureau of Land Management, 825 NE. Multnomah, Portland, Oregon 97208, and will be available to the public as a matter of information only. Copies of the plat(s) may be obtained from the above office upon required payment. A person or party who wishes to protest against a survey must file with the State Director, Bureau of Land Management, Portland, Oregon, a notice that they wish to protest prior to the proposed official filing date given above. A statement of reasons for a protest may be filed with the notice of protest to the State Director, or the statement of reasons must be filed with the State Director with thirty (30) days after the proposed official filing date.

The above-listed plats represent dependent resurveys, survey and subdivision.

**FOR FURTHER INFORMATION CONTACT:** Bureau of Land Management, 825 NE. Multnomah Street, P.O. Box 2965, Portland, Oregon 97208.

Dated: November 13, 1989.

Champ C. Vaughan,

Acting Chief, Branch of Lands and Minerals  
Operations.

[FR Doc. 89-27473 Filed 11-21-89; 8:45 am]

BILLING CODE 4310-33-M

INTERNATIONAL TRADE  
COMMISSION

[Investigation No. 332-283]

Japan's Distribution System and  
Options for Improving U.S. AccessAGENCY: United States International  
Trade Commission.ACTION: Institution of investigation and  
scheduling of public hearing.

EFFECTIVE DATE: November 13, 1989.

**FOR FURTHER INFORMATION CONTACT:** Diane Manifold, Trade Reports Division, Office of Economics, U.S. International Trade Commission, Washington, DC 20436, (202) 252-1271.

## Background

The Commission instituted investigation No. 332-283 following receipt of a letter on October 23, 1989 from the House Committee on Ways and Means, requesting that the Commission conduct an investigation, in two phases, under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) with respect to Japan's distribution system and options for improving U.S. access to that system. The Committee requested that the Commission submit Phase I of the report by June 22, 1990 and Phase II of the report by October 23, 1990.

Phase I of the Commission's study will provide an overview of the Japanese distribution system, including a discussion of its structural features, official policies and practices affecting it, and business practices. The first phase of the study will also analyze the composition of Japanese imports from the United States and other countries (e.g., capital goods, consumer goods), with a view to determining which types of changes in Japan's distribution system which are most likely to benefit U.S. exporters.

Phase II of the study will seek experts' views on options for improving U.S. access to the Japanese distribution system, including, but not limited to: (1) Experiences of U.S. and foreign businesses with the distribution system, (2) political, industry, or consumer forces likely to promote or oppose reform of the distribution system; and (3) products or services most likely to benefit from improved access to the distribution system.

## Public hearing

A public hearing in connection with this investigation will be held in the Commission Hearing Room, 500 E. Street, SW., Washington, DC 20436, beginning at 9:30 a.m. on January 26, 1990. All persons shall have the right to appear by

counsel or in person, to present information, and to be heard. Requests to appear at the public hearing should be filed with the Secretary, United States International Trade Commission, 500 E. Street, SW., Washington, DC 20436, no later than noon, January 19, 1990. Prehearing briefs (original and 14 copies) should be filed not later than noon, January 20, 1990. Post-hearing briefs are required by February 2, 1990.

## Written submission

In lieu of or in addition to appearances at the public hearing, interested persons are invited to submit written statements concerning the matters to be addressed in the report. Commercial or financial information that a party desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons in the Office of the Secretary to the Commission. To be assured of consideration by the Commission, written statements relating to the Commission's report should be submitted at the earliest practical date and should be received no later than February 2, 1990. All submissions should be addressed to the Secretary of the Commission at the Commission's office in Washington, DC. Hearing impaired individuals are advised that information on this matter can be obtained by contacting the TDD terminal on 202-252-1107.

Issued: November 14, 1989.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

[FR Doc. 89-27455 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-289]

Certain Concealed Cabinet Hinges and  
Mounting Plates; Decision To Review  
Certain Portions of Two Initial  
DeterminationsAGENCY: U.S. International Trade  
Commission.

ACTION: Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined to review



certain portions of two initial determinations issued by the presiding administrative law judge (ALJ) in the above-captioned investigation on September 28, 1989.

**FOR FURTHER INFORMATION CONTACT:** Calvin H. Cobb, III, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436; telephone 202-252-1103.

Hearing-impaired individuals are advised that information about this matter can be obtained by contacting the Commission's TDD terminal, 202-252-1810.

**SUPPLEMENTARY INFORMATION:** Julius Blum, Inc. (Blum), a U.S. assembler of certain patented concealed hinges and mounting plates, filed a complaint under section 337 of the Tariff Act of 1930 (19 U.S.C. 1337) alleging direct, contributory, and induced infringement of certain claims of three U.S. patents by 14 proposed respondents. The Commission instituted an investigation of Blum's complaint and issued a notice of investigation that was published in the *Federal Register* on December 28, 1988 (53 FR 52515).

On September 28, 1989, the presiding ALJ issued an ID (Order No. 118) terminating the investigation for abuse of Commission process. On the same day, the ALJ issued a second ID finding no violation of section 337 (the "Violation ID") in the investigation.

On October 12, 1989, the Commission issued a notice and order extending the deadline for determining whether to review Order No. 118 to coincide with the deadline (November 15, 1989) for determining whether to review the Violation ID. 54 FR 43001 (October 19, 1989).

Petitions for review of Order No. 118 were filed by complainant Blum, and respondents Agostino Ferrari, S.p.A. (Ferrari) and Liberty Hardware Mfg. Corp. (Liberty). Responses to petitions for review were filed by Blum, Ferrari, Liberty, respondent IUSA Hardware Mfg. Corp., and the Commission investigative attorney (IA).

Petitions for review of the Violation ID were filed by complainant Blum and respondents Ferrari and Liberty. Responses were filed by Blum, Ferrari, Liberty, and the IA.

No government agency comments were received.

Having examined the record in the investigation, including the two IDs, the Commission has determined not to review the findings of fact made by the ALJ with respect to both IDs, but has determined to review certain legal issues. Specifically, the Commission will

review the legal analysis of the ALJ in Order No. 118 and the legal analysis of the ALJ concerning the issue of domestic industry in the Violation ID. The Commission is particularly interested in the following issues:

Order No. 118.

a. Whether the Commission is authorized by law to award attorneys fees, or other appropriate sanctions, for breach of the duty of candor announced by the Commission in its opinion issued in *Certain Indomethacin*, Inv. No. 337-TA-183.

b. Whether the findings of fact made by the ALJ in connection with Order No. 118 support a conclusion that complainant's prefiling activities were not "objectively reasonable" under Federal Rule of Civil Procedure 11.

c. Whether the findings of fact made by the ALJ in connection with order No. 118 support the ALJ's conclusion that complainant filed its complaint for an improper purpose.

d. Whether the sanction of termination of the investigation is directed at the misconduct of the complainant, Blum, its counsel, or both. The Commission is also interested in analysis of the extent to which the allocation of fault between Blum and its counsel corresponds to the appropriateness of the sanction of termination of the investigation.

e. Whether termination of the investigation is the least severe sanction appropriate to address the misconduct found in this case, and if not, what alternative sanction(s) would be more appropriate.

2. The Violation ID.

a. Whether, under the facts as found by the ALJ in the Violation ID, assessing the existence of a domestic industry for purposes of section 337(a), as amended, as of the time of the evidentiary hearing would be consistent with section 337, as amended, and prior Commission decisions.

b. Whether the ALJ's conclusion that two separate domestic industries exist, one corresponding to each patent at issue, is consistent with section 337(a), as amended, and prior Commission decisions.

c. Whether the ALJ's reliance on the relative (as distinguished from absolute) significance of complainant's domestic production activities, as compared with complainant's production activities abroad, is consistent with section 337(a), as amended, and prior Commission decisions. In addition, whether a conclusion of law that levels of investment and employment exist that will be deemed "significant" *per se* is consistent with section 337(a)(3), as

amended, and prior Commission decisions.

In connection with final disposition of this investigation, the Commission may issue (1) an order that could result in the exclusion of the subject articles from entry into the United States, and/or (2) a cease and desist order that could result in a respondent being required to cease and desist from engaging in unfair acts in the importation and sale of such articles. Accordingly, the Commission is interested in receiving written submissions that address the form of remedy, if any, that should be ordered.

If the Commission contemplates some form of remedy, it must consider the effects of that remedy upon the public interest. The factors the Commission will consider include the effect that an exclusion order and/or cease and desist order would have on (1) the public health and welfare, (2) competitive conditions in the U.S. economy, (3) U.S. production of articles that are like or directly competitive with those that are subject to investigation, and (4) U.S. consumers. The Commission is therefore interested in receiving written submissions that address the aforementioned public interest factors in the context of this investigation.

If the Commission orders some form of remedy, the President has 60 days to approve or disapprove the Commission's action. During this period, the subject articles would be entitled to enter the United States under a bond, in an amount determined by the Commission and prescribed by the Secretary of the Treasury. The Commission is therefore interested in receiving submissions concerning the amount of the bond that should be imposed.

#### Written submissions

The parties to the investigation, interested government agencies, and any other persons are encouraged to file written submissions on the issues under review, remedy, the public interest, and bonding. Complainant and the Commission investigative attorney are also requested to submit a proposed exclusion order and/or proposed cease and desist order(s) for the Commission's consideration. Written submissions from the parties, including any proposed orders, must be filed by November 27, 1989, and reply submissions from the parties must be filed by December 4, 1989.

Persons filing written submissions must file with the Office of the Secretary the original document and 14 true copies thereof on or before the deadlines stated above. Any person desiring to submit a document (or portion thereof) to the



Commission in confidence must request confidential treatment unless the information has already been granted such treatment during the proceedings. All such requests should be directed to the Secretary of the Commission and must include a full statement of the reasons why the Commission should grant such treatment. See, 19 CFR 201.6, as amended by 54 FR 13677, 13678 (April 5, 1989). Documents for which confidential treatment is granted by the Commission will be treated accordingly. All nonconfidential written submissions will be available for public inspection at the Office of the Secretary.

#### Additional information

Copies of nonconfidential versions of the IDs and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436; telephone: 202-252-1000.

Issued: November 14, 1989.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

[FR Doc. 89-27457 Filed 11-21-89; 8:45 am]

BILLING CODE 3410-02-M

#### [Investigation No. 731-TA-451 (Preliminary)]

#### Gray Portland Cement and Cement Clinker From Mexico

#### Determination

On the basis of the record<sup>1</sup> developed in the subject investigation, the Commission determines,<sup>2</sup> pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Mexico of gray portland cement and cement clinker, provided for in subheadings 2523.10.00, 2523.29.00, and 2523.90.00 of the Harmonized Tariff Schedule of the United States (previously reported under item 511.14 of the Tariff Schedules of the United States), that are alleged to be sold in the United States at less than fair value (LTFV).

#### Background

On September 26, 1989, a petition was filed with the Commission and the

Department of Commerce by counsel on behalf of members of the Ad Hoc Committee of AZ-NM-TX-FL, Producers of Gray Portland Cement, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of gray portland cement and cement clinker from Mexico. Accordingly, effective September 26, 1989, the Commission instituted preliminary antidumping investigation No. 731-TA-451 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of October 2, 1989 (54 FR 40531). The conference was held in Washington, DC, on October 17, 1989, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission transmitted its determination in this investigation to the Secretary of Commerce on November 13, 1989. The views of the Commission are contained in USITC Publication 2235 (November 1989), entitled "Gray Portland Cement and Cement Clinker from Mexico: Determination of the Commission in Investigation No. 731-TA-451 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation."

Issued: November 16, 1989.

By Order of the Commission.

Kenneth R. Mason,  
Secretary.

[FR Doc. 89-27458 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

#### [Investigation No. 337-TA-301]

#### Certain Imported Artificial Breast Prostheses and the Manufacturing Processes Thereof; Change of Commission Investigative Attorney

Notice is hereby given that, as of this date, Daniel M. Duty, Esq., of the Office of Unfair Import Investigations has been designated as the Commission investigative attorney in the above-cited investigation instead of Cheri M. Taylor, Esq.

The Secretary is requested to publish this Notice in the *Federal Register*.

Dated: November 13, 1989.

Respectfully submitted,

Jeffrey R. Whieldon,

Acting Director, Office of Unfair Import  
Investigations, 500 E Street, SW., Washington,  
DC 20436.

[FR Doc. 89-27459 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

#### [Investigation No. 337-TA-304]

#### Certain Pressure Transmitters

Notice is hereby given that the prehearing conference in this matter will commence at 9:00 a.m. on November 27, 1989, in Courtroom C (room 217), U.S. International Trade Commission Building, 500 E St., SW., Washington, DC., and the hearing will commence immediately thereafter.

The Secretary shall publish this notice in the *Federal Register*.

Issued: November 15, 1989.

Janet D. Saxon,

Chief Administrative Law Judge.

[FR Doc. 89-27460 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

#### Probable Economic Effect of Redesignation of Certain Articles From Certain Countries as Eligible for Duty-Free Treatment Under the U.S. Generalized System of Preferences

**AGENCY:** United States International  
Trade Commission.

**ACTION:** Institution of investigation.

**SUMMARY:** Following receipt on October 31, 1989, of a request from the U.S. Trade Representative (USTR) under authority delegated by the President, the Commission instituted investigation No. 332-284 under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), to advise the USTR with respect to each article and country listed in the attached annex, as to the probable economic effect on U.S. industries producing like or directly competitive articles and on consumers of the elimination of U.S. import duties for such country and article under the Generalized System of Preferences (GSP).

As requested by the USTR, the Commission, in providing such advice, will assume that the benefits of the GSP would not apply to imports that would be excluded from receiving such benefits by virtue of the competitive need limits specified in section 504(c)(1) or (c)(2) of the Trade Act of 1974.

As requested, the Commission will provide its advice not later than February 1, 1990. To the extent possible, the Commission will include 1989 year-to-date statistics in its analyses and

<sup>1</sup> The record is defined in § 207.2(h) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(h)).

<sup>2</sup> Commissioner Newquist did not participate.



report. In particular, these data will be used in estimating the application of any competitive need limits.

**EFFECTIVE DATE:** November 16, 1989.

**FOR FURTHER INFORMATION CONTACT:**

- (1) Agricultural products, Mr. C.B. Stahmer (202-252-1321)
- (2) Textiles and apparel, Ms. Linda Shelton (202-252-1467)
- (3) Chemical products, Ms. Elizabeth Nesbitt (202-252-1355)
- (4) Minerals and metals, Mr. James Lukes (202-252-1426)
- (5) Machinery and equipment, Mr. John Cutchin (202-252-1396)
- (6) General manufactures, Mr. Eric Langer (202-252-1497)

All of the above are in the Commission's Office of Industries. For information on legal aspects of the investigation contact Mr. William Gearhart of the Commission's Office of the General Counsel at 202-252-1091.

**Background:** The letter from the USTR provided the following by way of background:

Under the Generalized System of Preferences (GSP), a country which has become ineligible for duty-free treatment with respect to an eligible article by reason of the operation of the competitive need provisions may, under certain conditions, be redesignated by the President for duty-free treatment with respect to such article. Since the early 1980s, however, the Trade Policy Staff Committee (TPSC) has had a policy of recommending that the President deny such redesignation for most articles from beneficiary developing countries that are one of the Newly Industrialized Economies (NIEs) (for example, Taiwan, South Korea, Hong Kong, Singapore, Mexico, Brazil, and Israel) and for certain other articles for which redesignation was expected to have a negative impact on U.S. producers.

In addition, a country which exceeds the competitive need limit for certain products may be eligible for a *de minimis* waiver of the competitive need limit if world imports of that product are below a statutory ceiling. TPSC policy has been to grant such waivers where there was no anticipated negative impact on U.S. producers. However, once a country is denied a *de minimis* waiver, usual practice has been to deny such a waiver in all subsequent years.

With the graduation on January 1, 1989, of Taiwan, South Korea, Hong Kong, and Singapore from the GSP and the consequent possible redistribution of GSP benefits to the other beneficiary developing countries, and also with the introduction on January 1, 1989, of a new tariff structure, the Harmonized Tariff Schedule of the United States, the TPSC is re-examining its redesignation and *de minimis* waiver policies.

**Written Submissions:** No public hearing has been scheduled in this matter. However, interested persons are invited to submit written statements concerning the investigation. Written

statements should be received by the close of business on December 15, 1989. Commercial or financial information which a submitter desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons. All submissions should be addressed to the Secretary, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436.

Hearing-impaired individuals are advised that information on this matter can be obtained by contacting our TDD terminal on (202) 252-1810.

Issued: November 16, 1989.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

**Annex I (HTS subheadings)**

Redesignation for duty-free treatment under the GSP is being considered for the following articles from the designated exporting country.

0703.20.00	(Mexico)	2529.22.00	(Mexico)
0704.10.40	(Mexico)	2603.00.00	(New Guinea)
0704.10.60	(Mexico)	2620.19.60	(Mexico)
0704.20.00	(Mexico)	2620.20.00	(Mexico)
0705.11.40	(Mexico)	2620.30.00	(Mexico)
0705.19.40	(Mexico)	2804.69.10	(Brazil)
0709.30.20	(Mexico)	2824.10.00	(Mexico)
0709.30.40	(Mexico)	2824.20.00	(Mexico)
0709.90.13	(Mexico)	2843.21.00	(Mexico)
0710.21.40	(Mexico)	2843.29.00	(Mexico)
0710.80.50	(Mexico)	2905.19.00	(Brazil)
0710.80.65	(Mexico)	2906.11.00	(Brazil)
0710.80.70	(Mexico)	2909.19.10	(Brazil)
0711.40.00	(Mexico)	2915.21.00	(Mexico)
0711.90.60	(Mexico)	2915.31.00	(Brazil)
0804.50.80	(Mexico)	2915.39.10	(Mexico)
0810.90.40	(Mexico)	2915.70.00	(Brazil)
0813.30.00	(Argentina)	2916.15.50	(Brazil)
1005.90.40	(Argentina)	2916.19.50	(Brazil)
1006.30.10	(Mexico)	2916.39.15	(Bahamas)
1007.00.00	(Argentina)	2917.13.00	(Brazil)
1102.30.00	(Thailand)	2917.14.10	(Brazil)
1103.14.00	(Thailand)	2917.19.50	(Brazil)
1701.11.00	(Brazil)	2917.35.00	(Brazil)
1701.12.00	(Brazil)	2918.11.10	(Brazil)
1701.91.20	(Brazil)	2918.22.50	(Bahamas)
1701.99.00	(Brazil)	2933.19.35	(Bahamas)
1806.10.40	(Brazil)	2933.90.31	(Bahamas)
1904.90.00	(Mexico)	3201.90.50	(Mexico)
2001.10.00	(Mexico)	3207.40.10	(Mexico)
2001.90.40	(Mexico)	3301.12.00	(Brazil)
2005.10.00	(Mexico)	3703.10.30	(Brazil)
2005.90.55	(Mexico)	3703.20.30	(Brazil)
2005.90.90	(Mexico)	3703.90.30	(Brazil)
2007.99.50	(Brazil)	3823.90.40	(Brazil)
2208.90.45	(Mexico)	3904.21.00	(Mexico)
2402.10.80	(Dom. Republic)	3904.22.00	(Mexico)
		3909.10.00	(Israel)
		3921.13.50	(Mexico)
		3921.90.50	(Mexico)
		3922.10.00	(Mexico)
		3922.20.00	(Mexico)
		3922.90.00	(Mexico)
		4011.10.00	(Brazil)
		4011.20.00	(Brazil)
		4011.40.00	(Brazil)
		4011.91.50	(Brazil)
		4011.99.50	(Brazil)
		4012.10.50	(Brazil)
		4104.21.00	(Argentina)
		4104.22.00	(Argentina)
		4104.29.50	(Argentina)
		4104.29.90	(Argentina)
		4104.31.50	(Argentina)
		4104.31.60	(Argentina)
		4104.31.80	(Argentina)
		4104.39.50	(Argentina)
		4104.39.60	(Argentina)
		4104.39.80	(Argentina)
		4105.20.60	(Argentina)
		4106.12.00	(India)
		4106.19.00	(India)
		4106.20.30	(India)
		4107.29.60	(Argentina)
		4107.90.60	(Argentina)
		4109.00.70	(Argentina)
		4411.19.20	(Brazil)
		4411.19.40	(Brazil)
		4411.21.00	(Brazil)
		4411.29.60	(Brazil)
		4411.29.90	(Brazil)
		4412.19.40	(Indonesia)
		4823.90.65	(Mexico)
		5208.31.20	(India)
		5208.32.10	(India)



5208.41.20 (India)	8424.90.10 (Mexico)	8501.51.50 (Mexico)
5208.42.10 (India)	8425.20.00 (Mexico)	8501.61.00 (Mexico)
5208.51.20 (India)	8425.31.00 (Mexico)	8501.62.00 (Mexico)
5208.52.10 (India)	8425.41.00 (Mexico)	8501.63.00 (Mexico)
5607.30.20 (Mexico)	8425.42.00 (Mexico)	8501.64.00 (Mexico)
6210.10.20 (Mexico)	8426.11.00 (Mexico)	8502.11.00 (Mexico)
6307.90.60 (Mexico)	8426.12.00 (Mexico)	8502.12.00 (Mexico)
6405.90.20 (Mexico)	8426.19.00 (Mexico)	8502.13.00 (Mexico)
6406.10.65 (Brazil)	8426.20.00 (Mexico)	8502.20.00 (Mexico)
6406.99.60 (Argentina)	8426.30.00 (Mexico)	8502.30.00 (Mexico)
6905.10.00 (Mexico)	8426.41.00 (Mexico)	8502.40.00 (Mexico)
6908.10.20 (Thailand)	8426.49.00 (Mexico)	8503.00.60 (Mexico)
6909.19.10 (Mexico)	8426.91.00 (Mexico)	8504.40.00 (Mexico)
6910.10.00 (Brazil) (Mexico)	8426.99.00 (Mexico)	8504.50.00 (Mexico)
6910.90.00 (Brazil) (Mexico)	8428.10.00 (Mexico)	8504.90.00 (Mexico)
6911.90.00 (Brazil) (Mexico)	8428.20.00 (Mexico)	8507.30.00 (Mexico)
6912.00.44 (Brazil)	8428.31.00 (Mexico)	8507.40.00 (Mexico)
7004.10.20 (Mexico)	8428.32.00 (Mexico)	8507.80.00 (Mexico)
7113.11.50 (Thailand)	8428.33.00 (Mexico)	8507.90.80 (Mexico)
7113.19.21 (Israel)	8428.39.00 (Mexico)	8509.90.20 (Mexico)
7113.19.50 (Thailand)	8428.40.00 (Mexico)	8509.90.30 (Mexico)
7113.20.21 (Israel)	8428.50.00 (Mexico)	8511.10.00 (Mexico)
7113.20.50 (Thailand)	8428.60.00 (Mexico)	8511.20.00 (Mexico)
7114.11.70 (Mexico)	8428.90.00 (Mexico)	8511.40.00 (Mexico)
7114.20.00 (Mexico)	8429.11.00 (Brazil)	8511.50.00 (Mexico)
7115.90.20 (Mexico)	8429.19.00 (Brazil)	8511.80.60 (Mexico)
7116.10.10 (Thailand)	8429.20.00 (Brazil)	8511.90.60 (Mexico)
7116.20.10 (Thailand)	8429.40.00 (Brazil)	8512.40.40 (Brazil)
7202.11.10 (Mexico)	8429.51.50 (Brazil)	8512.90.70 (Mexico)
7202.19.50 (Mexico)	8429.52.50 (Brazil)	8512.90.90 (Brazil) (Mexico)
7320.10.00 (Mexico)	8429.59.50 (Brazil)	8516.90.60 (Mexico)
7320.20.10 (Mexico)	8430.10.00 (Brazil)	8519.91.00 (Brazil) (Mexico)
7401.10.00 (Mexico)	8430.20.00 (Brazil)	8519.99.00 (Brazil)
7402.00.00 (Mexico)	8430.31.00 (Brazil)	8523.12.00 (Mexico)
7403.11.00 (Peru) (Zambia)	8430.39.00 (Brazil)	8523.13.00 (Mexico)
7403.12.00 (Peru) (Zambia)	8430.41.00 (Brazil)	8523.90.00 (Mexico)
7403.13.00 (Peru) (Zambia)	8430.49.80 (Brazil)	8527.11.11 (Brazil) (Mexico)
7403.19.00 (Peru) (Zambia)	8430.50.50 (Brazil)	8527.31.40 (Brazil) (Mexico)
7403.21.00 (Peru) (Zambia)	8430.61.00 (Brazil)	8534.00.00 (Mexico)
7403.22.00 (Peru) (Zambia)	8430.62.00 (Brazil)	8535.10.00 (Mexico)
7403.23.00 (Peru) (Zambia)	8430.69.00 (Brazil)	8535.21.00 (Mexico)
7403.29.00 (Peru) (Zambia)	8431.10.00 (Mexico)	8535.29.00 (Mexico)
7608.10.00 (Brazil)	8431.31.00 (Mexico)	8535.30.00 (Mexico)
7608.20.00 (Brazil)	8431.39.00 (Mexico)	8535.40.00 (Mexico)
7609.00.00 (Brazil)	8431.41.00 (Brazil)	8535.90.00 (Mexico)
7903.10.00 (Mexico)	8431.42.00 (Brazil)	8536.10.00 (Mexico)
7903.90.30 (Mexico)	8431.43.80 (Brazil)	8536.20.00 (Mexico)
8406.11.90 (Israel)	8431.49.10 (Mexico)	8536.30.00 (Mexico)
8406.19.90 (Israel)	8465.94.00 (Brazil) (Mexico)	8536.41.00 (Mexico)
8406.90.90 (Israel)	8470.40.00 (Mexico)	8536.49.00 (Mexico)
8407.32.20 (Brazil) (Mexico)	8471.99.30 (Mexico)	8536.61.00 (Mexico)
8407.33.20 (Brazil) (Mexico)	8473.21.00 (Mexico)	8536.69.00 (Mexico)
8407.34.20 (Brazil)	8473.29.00 (Mexico)	8537.10.00 (Mexico)
8408.10.00 (Brazil)	8473.30.80 (Mexico)	8537.20.00 (Mexico)
8408.20.90 (Brazil)	8473.40.20 (Mexico)	8538.10.00 (Mexico)
8408.90.90 (Brazil)	8473.40.40 (Mexico)	8538.90.00 (Mexico)
8409.91.92 (Brazil) (Mexico)	8479.10.00 (Brazil) (Mexico)	8539.10.00 (Mexico)
8409.91.99 (Brazil) (Mexico)	8479.30.00 (Brazil) (Mexico)	8543.10.00 (Mexico)
8409.99.91 (Brazil)	8479.81.00 (Brazil) (Mexico)	8543.20.00 (Mexico)
8409.99.92 (Brazil)	8479.82.00 (Brazil) (Mexico)	8543.30.00 (Mexico)
8411.91.90 (Brazil)	8479.89.70 (Brazil) (Mexico)	8543.80.90 (Mexico)
8411.99.90 (Brazil)	8479.89.90 (Brazil) (Mexico)	8543.90.80 (Mexico)
8414.51.00 (Mexico)	8479.90.40 (Brazil)	8544.20.00 (Mexico)
8414.59.80 (Mexico)	8479.90.80 (Brazil)	8544.41.00 (Mexico)
8414.60.00 (Mexico)	8483.10.10 (Brazil) (Mexico)	8544.51.40 (Mexico)
8414.90.10 (Mexico)	8483.10.30 (Brazil)	8544.60.20 (Mexico)
8415.10.00 (Mexico)	8501.20.40 (Mexico)	8547.90.00 (Brazil)
8415.81.00 (Mexico)	8501.20.50 (Mexico)	8548.00.00 (Mexico)
8415.82.00 (Mexico)	8501.31.40 (Mexico)	8708.10.00 (Brazil) (Mexico)
8415.83.00 (Mexico)	8501.31.50 (Mexico)	8708.21.00 (Brazil)
8419.11.00 (Israel)	8501.31.80 (Mexico)	8708.29.00 (Brazil) (Mexico)
8419.19.00 (Israel)	8501.32.60 (Mexico)	8708.31.50 (Brazil) (Mexico)
8419.90.10 (Israel)	8501.33.60 (Mexico)	8708.39.50 (Brazil) (Mexico)
8421.23.00 (Brazil)	8501.34.60 (Mexico)	8708.40.10 (Brazil) (Mexico)
8421.31.00 (Brazil)	8501.40.50 (Mexico)	8708.40.20 (Brazil) (Mexico)
8424.20.10 (Mexico)	8501.51.40 (Mexico)	



8708.40.50 (Brazil) (Mexico)  
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 8708.50.80 (Brazil) (Mexico)  
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 8708.93.50 (Brazil) (Mexico)  
 8708.99.50 (Brazil)  
 8716.90.50 (Brazil) (Mexico)  
 9008.90.40 (Mexico)  
 9009.90.00 (Mexico)  
 9013.20.00 (Mexico)  
 9018.39.00 (Mexico)  
 9021.90.80 (Mexico)  
 9025.11.20 (Brazil)  
 9025.19.00 (Mexico)  
 9028.90.00 (Mexico)  
 9113.10.00 (Thailand)  
 9303.30.40 (Brazil)  
 9401.40.00 (Thailand)  
 9401.61.60 (Thailand)  
 9401.69.80 (Thailand)  
 9401.90.10 (Mexico)  
 9403.30.80 (Thailand)  
 9403.40.60 (Mexico)  
 9403.40.90 (Thailand)  
 9403.50.60 (Mexico)  
 9403.50.90 (Thailand)  
 9403.60.80 (Thailand)  
 9403.90.10 (Mexico)  
 9405.10.80 (Mexico)  
 9405.20.80 (Mexico)  
 9405.40.80 (Mexico)  
 9405.91.20 (Mexico)  
 9504.20.60 (Brazil)  
 9508.00.00 (Brazil) (Mexico)  
 9613.80.20 (Mexico)  
 9613.90.40 (Mexico)

[FR Doc. 89-27456 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

#### [Investigation No. 731-TA-341 (Final)]

#### **Tapered Roller Bearings and Parts Thereof and Certain Housings Incorporating Tapered Rollers From Hungary**

**AGENCY:** United States International Trade Commission.

**ACTION:** Notice of judicial remand and the procedures to be followed.

**SUMMARY:** Notice is hereby given that the U.S. Court of International Trade ("CIT") has issued a decision reversing the six-country cumulative injury causation analysis supporting the Commission's determination under section 735(b)(1) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)(1)) (1982 and Supp. V 1987) that an industry in the United States is materially injured by reason of imports from Hungary of tapered roller bearings, parts thereof, and certain housings incorporating tapered rollers, which are provided for in subheadings 8482.20.00, 8482.91.00 and 8482.99.30, and 8483.20.40 and heading 8708, respectively, of the Harmonized Tariff

Schedule of the United States (previously under items 680.30, 680.39, 681.10, and 692.32 of the former Tariff Schedules of the United States) and were found by the U.S. Department of Commerce to have been sold in the United States at less than fair value. The CIT has remanded this matter to the Commission for a new determination as to whether there is material injury or threat thereof based on the volume and effects of Hungarian imports alone.

**DATES:** The deadline for the Commission to complete the remand proceedings and report its new injury determination to the CIT is December 21, 1989. The Commission will consider written comments from parties to the original investigation concerning the remand determination if they conform to the guidelines set forth below and are received in the Office of the Secretary no later than 5:15 p.m. on November 27, 1989.

**ADDRESS:** Written comments from the parties to the original investigation should be sent to Kenneth R. Mason, Secretary, U.S. International Trade Commission, 500 E Street, SW., room 112, Washington, DC 20436.

**FOR FURTHER INFORMATION CONTACT:** For further information concerning the remand proceedings or the original investigation, contact Lisa A. Zanetti, Office of Investigations, U.S. International Trade Commission, telephone 202-252-1189. For further information concerning the judicial proceedings that led to the remand, contact P.N. Smithy, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-252-1061. Hearing-impaired individuals are advised that information on these matters can be obtained by contacting the Commission's TDD terminal on 202-252-1810.

**SUPPLEMENTARY INFORMATION:** The original investigation was conducted in 1987 concurrently with a series of final antidumping duty investigations concerning imports of tapered roller bearings from various countries. See 52 FR 5841 (Feb. 26, 1987). See also 52 FR 11347 (Apr. 8, 1987). In the subject investigation of Hungarian imports, the Commission majority based its affirmative final injury determination on a cumulative assessment of the volume and price effects of imports from Hungary, Italy, Japan, The People's Republic of China, Romania, and Yugoslavia. See 52 FR 22399 (June 11, 1987); *Tapered Roller Bearings and Parts Thereof* \* \* \* from Hungary, the People's Republic of China, and Romania, Invs. Nos. 731-TA-341, 344,

and 345 (Final) USITC Pub. 1983 (June 1987) ("USITC Pub. 1983").

U.S. importer Marsuda-Rodgers International appealed that determination by initiating a civil action in the CIT pursuant to 19 U.S.C. 1516a(a)(2) (1982 and Supp. V 1987). On July 26, 1989, the CIT issued a decision reversing the Commission's six-country cumulative analysis. The Court held that the Commission's decision to cumulate Hungarian imports with imports from other countries under investigation was not supported by substantial evidence on the record and was based on an erroneous interpretation of the import/domestic product competition requirement for cumulation under 19 U.S.C. 1677(7)(C)(iv) (1984 and Supp. V 1987). The Court ordered a remand, instructing the Commission to make a new final injury determination based on the volume and effects of Hungarian imports alone. *Marsuda-Rodgers International v. United States*, 13 CIT \_\_\_\_, Slip Op. 89-106 (July 26, 1989) (Per Tsoucalas J.).

The CIT denied the Commission's subsequent motion to have the July 26th decision certified for discretionary review by the U.S. Court of Appeals for the Federal Circuit under 28 U.S.C. 1292(d)(1) (1982 and Supp. VII 1989). *Marsuda-Rodgers International v. United States*, 13 CIT \_\_\_\_, Slip Op. 89-150 (Oct. 24, 1989) (Per Tsoucalas J.).

A scheduling order entered by the CIT on November 6, 1989, set a 45-day deadline for the Commission to report its new injury determination to the Court and a 14-day deadline for parties to the litigation to file their responses to that determination with the Court. The procedures to be followed in the remand proceedings before the Commission are set forth below.

#### **Entries of Appearances and the Service List**

The entries of appearances that were filed in response to the notice announcing the original investigation (published at 52 FR 5841 (Feb. 26, 1987)) will remain in effect for purposes of the remand proceedings. The official service list from the original investigation will be used as well.

#### **Staff Report**

The report of information obtained in the original investigation contains data on the volume and price effects of uncumulated Hungarian imports, as well as other data that are relevant to the question of injury causation. (The nonconfidential version of that report appears in USITC Pub. 1983 *supra*.) The Commission will use the report from the



original investigation for purposes of the remand proceedings.

#### Hearing

The Commission will not conduct a public hearing concerning the subject matter of the remand proceedings. At the hearing in the original investigation on May 12, 1987, parties to the investigation had the opportunity to and did present arguments and testimony relevant to the question of whether an industry in the United States is materially injured or threatened with such injury by reason of unaccumulated Hungarian imports. (See 52 FR 5841 and 5842 (Feb. 26, 1987).) The Commission will take into account the relevant portions of the transcript of that hearing, as well as the relevant exhibits and prehearing or posthearing submissions, for purposes of these remand proceedings.

#### Written Comments From the Parties

Parties to the original investigation—i.e., parties who entered appearances in investigation No. 731-TA-341 (Final) in response to the notice published at 52 FR 5841 (Feb. 26, 1987)—may file written comments with the Commission concerning the single country injury determination to be made in these remand proceedings. The parties must submit such comments on or before the deadline listed above. Submissions may contain legal and factual arguments, but must be based on information or evidence on the record of the original investigation.

A signed original and fourteen (14) copies of each set of comments must be filed with the Commission Secretary in accordance with Commission rule 201.8 (19 CFR 201.8) and must meet all other requirements of that rule. Each set of comments must be accompanied by a certificate of service indicating that copies of the comments were served on other parties of record in accordance with Commission rule 201.16(b) (19 CFR 201.16(b)). (Parties will not be permitted to file responses to each other's comments, unless leave to do so is granted by the Commission.)

Any comments containing confidential record data must be filed separately. The envelope and all pages of such comments must clearly be labelled "Contains Confidential Business Information Covered by a Protective Order."

The protective orders issued in the original investigation and the agreements signed by counsel for the parties will remain in effect for purposes of the remand proceedings. Since these proceedings are being conducted by order of the CIT, the judicial protective

orders issued in *Marsuda-Rodgers International v. United States*, Court No. 87-07-00772, shall also apply with respect to the use and handling of confidential record data by counsel for Marsuda-Rodgers and counsel for The Timken Co. (the petitioner in the original investigation and defendant-intervenor in the CIT appeal).

#### Public Inspection

Copies of the CIT decision ordering the remand, the CIT scheduling order setting a deadline for completion of the remand proceedings, and the nonconfidential versions of written comments from parties submitted pursuant to this notice will be available for public inspection during official business hours (8:45 a.m. to 5:15 p.m. Monday through Friday) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW., Docket Section—Room 112, Washington, DC 20436, telephone 202-252-1802.

Nonconfidential documents on the record of the original investigation will be made available for public inspection upon request. Such requests should be made by telephone or in writing at least two (2) full business days before the day on which the requester wishes to inspect the documents in question. The person to whom such requests should be directed is Ruby J. Dionne, Docket Section Chief, Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW., Room 112, Washington, DC 204536, telephone 202-252-1799.

Persons with mobility impairments who will need special assistance in gaining access to the Commission's premises and facilities should telephone the Office of the Secretary at 202-252-1000.

By Order of the Commission.

Issued: November 17, 1989.

Kenneth R. Mason,  
Secretary.

[FR Doc. 89-27583 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

#### INTERSTATE COMMERCE COMMISSION

[Directed Service Order No. 1507-A]

**St. Louis Southwestern Railway Co.—Directed Service—Chicago, Missouri and Western Railway Co., Debtor (Daniel R. Murray, Trustee)**<sup>1</sup>

**AGENCY:** Interstate Commerce Commission.

<sup>1</sup> In Finance Docket No. 31522, Rio Grande Industries, Inc., et al.—Purchase and Trackage

**ACTION:** Termination of directed service authority.

**SUMMARY:** Pursuant to 49 U.S.C. 11125, the Commission authorized the St. Louis Southwestern Railway Company (SSW) to operate as a "Directed Rail Carrier"—uncompensated and without Federal subsidy under 49 U.S.C. 11125(b)(5)—over the Chicago to St. Louis lines of the Chicago, Missouri and Western Railway Company (CMW) for 60 days, effective October 16, 1989.

Consummation of the sales transaction authorized in Finance Docket No. 31522, Rio Grande Industries, Inc., et al.—Purchase and Trackage Rights—Chicago, Missouri and Western Railway Company Between St. Louis, MO and Chicago, IL., was effected on November 8, 1989, and operations have begun under that authority. Authority contained in Directed Service order No. 1507 (DSO 1507) is no longer needed and that order is being vacated. Similarly, petitions filed by Burlington Northern Railroad Company (BN) and Illinois Central Railroad Company (ICR) seeking modification and clarification of DSO 1507 are no longer viable and are hereby dismissed.

**EFFECTIVE DATE:** Directed Service Order No. 1507—A terminating the authority contained in DSO 1507, shall be effective on November 21, 1989.

#### FOR FURTHER INFORMATION CONTACT:

Melvin F. Clemens, Jr. (202) 275-1559 or Joseph H. Dettmar (202) 275-7245. (TDD for hearing impaired: (202) 275-1721).

**SUPPLEMENTARY INFORMATION:** The unsubsidized and uncompensated directed service authority, granted in DSO 1507, was based on a representation by the CMW Trustee that the railroad's cash position would not allow it to continue operations over its entire system, necessitating a cessation of service by CMW over a portion of its lines. To assure continued service to shippers affected by the discontinuance of operations, the Commission in DSO 1507, authorized the SSW to provide interim service over CMW between Chicago and St. Louis.

Rights—Chicago, Missouri and Western Railway Company Between St. Louis, MO and Chicago, IL., served September 29, 1989, the Commission granted authority for Rio Grande Industries, Inc., Southern Pacific Transportation Company, The Denver and Rio Grande Western Railroad Company, St. Louis Southwestern Railway Company, and SPCSL Corp., a recently incorporated subsidiary of Rio Grande Industries (collectively RGI), to acquire CMW's lines between East St. Louis, and Chicago, IL., East St. Louis and Godfrey, IL., and certain attendant trackage rights.



In view of RGI's consummation of its purchase of CMW's East St. Louis to Chicago line under its previously granted authority to acquire and operate those lines, the authority contained in DSO 1507 may now be vacated. Additionally, the consummation of the purchase has made moot the petitions filed by BN and ICR on October 19 and 20, 1989 respectively, requesting modification and clarification of DSO 1507. Those petitions are hereby dismissed.

This action will not significantly affect either the quality of the human environment or energy conservation.

*It is ordered:*

1. Directed Service Order No. 1507 is vacated.
2. Petitions filed by BN and ICR seeking modification and clarification of DSO 1507 are dismissed.
3. Notice of this decision shall be given to the general public by publication in the **Federal Register**. The decision will also be served on the Federal Railroad Administration; the Association of American Railroads, Transportation Division; American Short Line Railroad Association; Amtrak; The Railway Labor Executives' Association, and all parties to Finance Docket No. 31522.
4. This decision and order shall become effective on November 21, 1989.

Decided: November 15, 1989.

By the Commission, Chairman Gradison, Vice Chairman Simmons, Commissioners Andre, Lamboley, and Phillips. Vice Chairman Simmons did not participate in the disposition of this proceeding.

Noreta R. McGee,

Secretary.

[FR Doc. 89-27416 Filed 11-21-89; 8:45 am]

BILLING CODE 7035-01-M

[Finance Docket No. 31554]

**Jack L. Hadley—Control Exemption—Kiamichi Railroad Co., Inc. and Chaparral Railroad Co., Inc.**

**AGENCY:** Interstate Commerce Commission.

**ACTION:** Notice of exemption.

**SUMMARY:** Pursuant to 49 U.S.C. 10505, the Commission exempts from the prior approval requirements of 49 U.S.C. 11343, *et seq.*, the acquisition of control of Kiamichi Railroad Company, Inc., and Chaparral Railroad Company, Inc., by Jack L. Hadley, subject to standard labor protective conditions. The exemption is related to the notice of exemption in Finance Docket No. 31553.

**DATES:** This exemption is effective on November 25, 1989. Petitions to reopen must be filed by December 12, 1989.

**ADDRESSES:** Send pleadings referring to Finance Docket No. 31554 to:

- (1) Office of the Secretary, Case Control Branch, Interstate Commerce Commission, Washington, DC 20423
- (2) Petitioners' representative: Kevin M. Sheys, Suite 800, 1350 New York Avenue, NW., Washington, DC 20005

**FOR FURTHER INFORMATION CONTACT:** Joseph H. Dettmar, (202) 275-7245 (TDD for hearing impaired: (202) 275-1721).

**SUPPLEMENTARY INFORMATION:**

Additional information is contained in the Commission's decision. To obtain a copy of the full decision, write to, call, or pick up in person from: Dynamic Concepts, Inc., room 2229, Interstate Commerce Commission Building, Washington, DC 20423. Telephone: (202) 289-4357/4359. (Assistance for the hearing impaired is available through TDD services (202) 275-1721).

Decided: November 15, 1989.

By the Commission, Chairman Gradison, Vice Chairman Simmons, Commissioners Andre, Lamboley, and Phillips.

Noreta R. McGee,

Secretary.

[FR Doc. 89-27415 Filed 11-21-89; 8:45 am]

BILLING CODE 7035-01-M

**DEPARTMENT OF JUSTICE**

**Lodging of a Consent Decree Pursuant to CERCLA, RCRA and the Clean Water Act**

In accordance with section 122 of the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA"), 42 U.S.C. 9622, and Departmental policy, 28 CFR 50.7, notice is hereby given that on November 9, 1989, a proposed consent decree in *United States v. Phoenix Capital Enterprises, Inc.*, Civil Action No. LR-C-87-833, an action consolidated with *United States v. Vertac Chemical Corp.*, Civil Action No. LR-C-80-109, was lodged with the United States District Court for the Eastern District of Arkansas. The decree resolves claims of the United States against Phoenix Capital Enterprises, Inc. ("Phoenix"), Inter-Ag Corporation, InterCapital Industries, Inc., C.P. Bomar, Jr., and J. Randal Tomblin (collectively referred to as "the Phoenix Parties") under CERCLA, 42 U.S.C. 9601 *et seq.*, the Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*, the Clean Water Act, 33 U.S.C. 1251 *et seq.*, and the Federal Priority Statute, 31 U.S.C. 3713, in connection with the Vertac, the

Graham Road, and the Rogers Road Superfund sites in Jacksonville, Arkansas. It also resolves the claims of the Arkansas Department of Pollution Control and Ecology against these defendants under various state and federal statutes.

These claims arose out of the alleged failure of Vertac Chemical Corporation ("Vertac"), a subsidiary of Phoenix, to comply with its obligations under a consent decree with the United States entered in 1982 to properly maintain the drums of hazardous substances on the Vertac site and otherwise respond to environmental conditions on the site, and the transfer of certain Vertac assets to another Phoenix subsidiary, Inter-Ag Corporation. Vertac is now governed by a court-appointed receiver.

Under this Consent Decree, the Phoenix Parties agree to pay \$1,840,000 to a trust fund established under the Resource Conservation and Recovery Act to be used in cleaning up the Vertac site. The Phoenix Parties also agree to pay \$126,000 toward the assessment of natural resource damages by the United States Department of the Interior in the off-site areas in the vicinity of the Vertac site. Finally, Phoenix and its subsidiaries agree to pay 33 percent of their combined pre-tax profit for each year from 1989 to 2000 to the Superfund. The Consent Decree identifies the accounting procedures to be used in calculating Phoenix's pre-tax profit. If Phoenix liquidates during that twelve year period, Phoenix agrees to pay 40 percent of its liquidation value.

The proposed decree may be examined at the office of the United States Attorney for the Eastern District of Arkansas, 327 Post Office & Courthouse Building, 600 West Capitol Street, Little Rock, AR 72203; at the Region 6, Office of Regional Counsel, Environmental Protection Agency, 1445 Ross Avenue, 12th Floor, Dallas, TX 75202 (contact: Seth Thomas Low, Esq.); and at the Environmental Enforcement Section, Land and Natural Resources Division of the United States Department of Justice, room 1515, 10th and Pennsylvania Avenue, NW., Washington, DC 20530. In requesting copies, please enclose a check in the amount of \$3.40 (10 cents per page reproduction charge) payable to the Treasurer of the United States. The Department of Justice will receive written comments relating to the proposed consent decree for a period of thirty (30) days from the date of this notice. Comments should be addressed to Assistant Attorney General, Land and Natural Resources Division, Department of Justice, Washington, DC 20530, and



should refer to *United States v. Phoenix Capital Enterprises, Inc.*, Civil Action No. LR-C-87-833 (E.D. Ark.), D.J. Reference No. 90-7-1-18A.

Donald A. Carr,

Acting Assistant Attorney General, Land and Natural Resources Division.

[FR Doc. 89-27424 Filed 11-21-89; 8:45 am]

BILLING CODE 4410-01-M

#### Lodging of Consent Decree Pursuant to the Clean Air Act

In accordance with Departmental policy, 28 CFR 50.7, notice is hereby given that on October 27, 1989, a proposed Consent Decree in *United States v. Ward Court Development Company*, Civil Action No. 89-00828 DAE, was lodged with the United States District Court for the District of Hawaii. The Complaint sought penalties and injunctive relief against Ward Court Development Company for violations of regulations issued under the Clean Air Act, 42 U.S.C. 7601 *et seq.*, regarding the handling and disposal of friable asbestos. 40 CFR 61.140-61.156.

The proposed Consent Decree imposes an injunction against future violations of the Clean Air Act, including specific steps to assure proper procedures are followed with respect to notification to regulatory agencies and with respect to the handling and disposal of asbestos. The proposed Consent Decree also imposes a civil penalty of \$40,000.

The Department of Justice will receive for a period of thirty (30) days from the date of this publication, comments relating to the proposed Consent Decree. Comments should be addressed to the Assistant Attorney General of the Land and Natural Resources Division, Department of Justice, P.O. Box 7611, Washington, DC 20044. Comments should refer to *United States v. Ward Court Development Company*, DJ No. 90-5-2-1-1334.

The proposed Consent Decree may be examined at the Office of the United States Attorney, District of Hawaii, Room C-242, U.S. Courthouse, 300 Ala Moana Blvd. Honolulu, Hawaii, and the Environmental Enforcement Section, Land and Natural Resources Division of the Department of Justice, Room 1647, Ninth Street and Pennsylvania Avenue, NW., Washington, DC 20530. A copy of the proposed Consent Decree may be obtained in person or by mail from the Environmental Enforcement Section, Land and Natural Resources Division of the Department of Justice.

In requesting a copy, please enclose a check in the amount of \$2.80 (10 cents per page reproduction cost) payable to the "Treasurer of the United States."

Richard B. Stewart,

Assistant Attorney General, Land and Natural Resources Division.

[FR Doc. 89-27426 Filed 11-21-89; 8:45 am]

BILLING CODE 4410-01-M

#### NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

##### Conservation Project Support, Museum Assessment Program, and Museum Assessment Program II; Grant Application Availability

**AGENCY:** Institute of Museum Services, NFAH.

**ACTION:** Grant application availability notice for fiscal year 1990.

This grant application announcement applies to the Conservation Project Support (CP), Museum Assessment Program (MAP) and Museum Assessment Program II (MAP II) awards under 45 CFR part 1180 for Fiscal Year 1990.

##### Nature of Program

Museums meeting the definitions in 45 CFR 1180.3 may apply for these programs. The definition of "Museum" includes (but is not limited to) the following institutions if they satisfy the other provisions of this section: Aquariums and zoological parks; botanical gardens and arboreta; nature centers; museums relating to art, history (including historic buildings), natural history, science and technology; and planetariums. The purpose of these awards is to ease the financial burden borne by museums as a result of their increased use by the public and to help them carry out their educational role, as well as other functions.

Awards are made through the Conservation Support Program (CP) to assist with the conservation of museum collections, both living and non-living.

The Museum Assessment Program funds an overall assessment of a museum's operations. The Museum Assessment Program II funds an assessment of the museum's collection-related policies. Both of the Museum Assessment Programs are non-competitive, one-time funding opportunities, offered on a first-come, first-served basis. The Museum Assessment Programs are administered in cooperation with the American Association of Museums through a memorandum of understanding. See 45 CFR part 1180, subpart D.

Section 206 of the Museum Services Act, title II of Public Law 94-462, as amended, contains authority for these programs. (20 U.S.C. 965)

##### Deadline Date for Transmittal of Applications

Applications must be mailed or hand-delivered by the deadline date:

The deadline date for the Conservation Project Support Program is January 26, 1990. The deadline date for the Museum Assessment Program is April 27, 1990. The deadline dates for Museum Assessment Program II are January 26, 1990 and July 27, 1990.

##### Conservation Project Support Applications Delivered by Mail

The Conservation Project Support Program application that is sent by mail must be addressed to the Institute of Museum Services, 1100 Pennsylvania Avenue, NW., room 609, Washington, DC 20506.

An applicant must be prepared to show one of the following as proof of timely mailing:

(1) A legibly dated U.S. Postal Service postmark.  
(2) A legible mail receipt with the date of mailing stamped by the U.S. Postal Service.

(3) A dated shipping label, invoice, or receipt from a commercial carrier.

(4) Any other dated proof of mailing acceptable to the Director of IMS.

If any application is mailed through the U.S. Postal Service, the Director does not accept either of the following as proof of mailing: (1) A private metered postmark; or (2) a mail receipt that is not dated-cancelled by the U.S. Postal Service.

##### Conservation Project Support Applications Delivered by Hand

An application that is hand-delivered must be taken to the address listed above.

Hand-delivered applications will be accepted between 9:00 a.m. and 4:30 p.m. (Washington, DC time) daily, except Saturdays, Sundays, and Federal holidays.

An application that is hand-delivered will not be accepted after 4:30 p.m. on the deadline date.

##### Museum Assessment Program and Museum Assessment Program II Application Procedures

To participate in MAP or MAP II, a museum must apply to IMS through the American Association of Museums. IMS supplies the AAM with application forms and instructions. These are forwarded by AAM to applicant museums. The Director of IMS approves applications meeting the MAP and MAP II requirements on a first-come, first-served basis (i.e., in the order in which an application is received and has been determined to have met applicable requirements). Applications will be



approved for awards, subject to the availability of funds, until a given date published in the **Federal Register**. For Fiscal Year 1990, the deadline dates are: for MAP, April 27, 1990 and for Map II, January 26, 1990 and July 27, 1990. If a museum's MAP or MAP II application is received on or before the indicated dates, it will be processed together with other MAP or MAP II applications received during the period. Applications received after the indicated dates will be processed during the subsequent MAP or MAP II periods. In no event will MAP applications received after April 27, 1990 and MAP II applications received after July 27, 1990 be processed for Fiscal Year 1990 awards. Applicants should contact the American Association of Museums, 1225 Eye St., NE., Washington, DC 20005, for application packets.

#### *Program Information*

Program regulations for the Conservation Project Support Program are contained in 45 CFR 1180.20 (1988) and related provisions. Regulations for the Museum Assessment Programs are contained in 45 CFR part 1180, subpart D (1988). Further program information may be found in the Application forms and accompanying instructions in the Application. See paragraph on Application Forms.

#### *Available Funds*

Under the Interior Department and Related Agencies FY 90 Appropriations Act \$2,650,000 is available for the Conservation Project Support program. However, as a result of the sequester mandated under the Balanced Budget and Emergency Deficit Control Act of 1985 the available funds have been reduced to \$2,554,000. Normally, IMS makes matching conservation grants of no more than \$25,000 in Federal Funds. Unless otherwise provided by law, if the Director determines that exceptional circumstances warrant, the Director, with the advice of the Board, may award a Conservation Project Support grant which obligates in excess of \$25,000 in Federal funds. The Director may make such a determination with respect to a category of Conservation grants by notice published in the **Federal Register**. IMS awards conservation Project Support grants only on a matching basis. At least 50% of the costs of a project must be met with non-Federal funds. (See 45 CFR 1180.20(f)).

Under the Interior Department and Related Agencies FY 90 Appropriations Act \$400,000 is available for the Museum Assessment Program and Museum Assessment Program II. However the sequester mandated under the Balanced

Budget and Emergency Deficit Control Act of 1985 reduces the available funds to \$385,000.

#### *Funding Priorities for Conservation Project Support Program*

The National Museum Services Board, by notice published in the **Federal Register**, may establish priorities among the types of projects. IMS Conservation Project Support guidelines identify four broad categories of museum collections: Non-living; systematics/natural history collections; living collections/animals; and living collections/plants. For each of the categories, with the exception of living collections/animals, the funding priority is a general conservation survey of collections and environmental conditions including, development of institutional long-range conservation plans. For living collections/animals the funding priority is research for improved conservation techniques.

#### *Application forms*

IMS mails application forms and program information in a Conservation Project Support program application packet to museums and other institutions on its mailing list. Applicants may obtain application packets by writing or telephoning the Institute of Museum Services, 1100 Pennsylvania Avenue, NW., room 609, Washington, DC 20506, (202)/786-0539. To receive an application for the Museum Assessment Programs contact the American association of Museums, 1225 Eye St., NW., Washington, DC 20005, (202)/289-1818.

**FOR FURTHER INFORMATION CONTACT:** Mamie Bittner, Public Information Officer, Institute of Museum Services, 1100 Pennsylvania Avenue, NW., Washington, DC 20506. Telephone: (202) 786-0536.

(Catalogue of Federal Domestic Assistance No. 45.301 Institute of Museum Services)

Dated: November 15, 1989.

Daphne Wood Murray,

Director, Institute of Museum Service.

[FR Doc. 89-27450 Filed 11-21-89; 8:45 am]

BILLING CODE 7036-01-M

## **NUCLEAR REGULATORY COMMISSION**

### **Staff Assessment of Proposed Amended Agreement Between the Nuclear Regulatory Commission**

**AGENCY:** U. S. Nuclear Regulatory Commission.

**ACTION:** Notice of Proposed Amended Agreement with State of Utah.

**SUMMARY:** Notice is hereby given that the U.S. Nuclear Regulatory Commission (NRC) is publishing for public comment the NRC staff assessment of a proposed amended agreement received from the Governor of the State of Utah for the assumption of certain of the Commission's regulatory authority pursuant to section 274 of the Atomic Energy Act of 1954, as amended. Comments are requested on the public health and safety aspects of the proposal.

A staff assessment of the State's proposed amended program of control over sources of radiation is set forth below as supplementary information to this notice. A copy of the proposed amended agreement, program narrative, including the referenced appendices, applicable State legislation and Utah regulations, is available for public inspection in the Commission's public document room at 2120 L Street, NW., Washington, DC. Exemptions from the Commission's regulatory authority, which would implement this proposed amended agreement, have been published in the **Federal Register** and codified as part 150 of the Commission's regulations in Title 10 of the Code of Federal Regulations.

**DATES:** Comments must be received on or before December 15, 1989.

**ADDRESSES:** Submit comments to: the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555. ATTN: Docketing and Services Branch. Comments may also be delivered to 11555 Rockville Pike, Rockville, Maryland from 7:45 a.m. to 4:15 p.m. Monday through Friday. Copies of comments received by NRC may be examined at the NRC Public Document Room, 2120 L Street, NW., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Vandy L. Miller, State, Local and Indian Tribe Programs, U.S. Nuclear Regulatory Commission, Washington, DC. 20555, telephone: 301-492-0326.

#### **SUPPLEMENTARY INFORMATION:**

Assessment of proposed amended Utah Program to regulate certain radioactive materials pursuant to section 274 of the Atomic Energy Act of 1954, as amended.

The Commission has received a proposal from the Governor of Utah for the State to amend its agreement with the NRC whereby the NRC would relinquish and the State would assume regulatory authority for land disposal of source, byproduct and special nuclear material received from other persons pursuant to section 274 of the Atomic Energy Act of 1954, as amended.



Section 274e of the Atomic Energy Act of 1954, as amended, requires that the terms of the proposed agreement be published for public comment once each week for four consecutive weeks. Accordingly, this notice will be published four times in the **Federal Register**.

## I. Background

A. Section 274 of the Atomic Energy Act of 1954, as amended, provides a mechanism whereby the NRC may transfer to the States certain regulatory authority over agreement materials<sup>1</sup> when a State desires to assume this authority and the Governor certifies that the State has an adequate regulatory program, and when the Commission finds that the State's program is compatible with that of the NRC and is adequate to protect the public health and safety. Section 274g directs the Commission to cooperate with the States in the formulation of standards for protection against radiation hazards to assure that State and Commission programs for radiation protection will be coordinated and compatible. Further, section 274j provides that the Commission shall periodically review such agreements and actions taken by the States under the agreements to ensure compliance with the provisions of this section.

B. On March 29, 1984, the Governor of Utah signed an agreement with the NRC for the assumption of regulatory authority for byproduct material as defined in section 11e.(1) of the Act, source material and special nuclear material in quantities not sufficient to form a critical mass. In a letter dated July 17, 1989, Governor Norman H. Bangert of the State of Utah requested that the Commission enter into an amended agreement with the State pursuant to section 274 of the Atomic Energy Act of 1954, as amended, under which the State would also assume responsibility for regulating the land disposal of these materials received from other persons. The Governor certified that the State of Utah has a program for control of radiation hazards which is adequate to protect the public health and safety with respect to the materials within the State covered by the proposed amendment to the agreement, and that the State of Utah desires to assume regulatory responsibility for such materials. The text of the proposed agreement is shown in Appendix A.

The specific authority requested is for

permanent disposal of low-level waste containing the material for which Utah has assumed regulatory authority under the 1984 agreement but not containing uranium and thorium mill tailings (byproduct material as defined in section 11e.(2) of the Act). The State does not wish to assume authority over uranium recovery activities. The State, however, reserves the right to apply at a future date to NRC for an amended agreement to assume authority in this area. The proposed amendment to the agreement covers the following areas:

1. Amending Article I of the Agreement of March 29, 1984 to add land disposal of source, byproduct and special nuclear material received from other persons to the list of materials covered by the agreement.

2. Amending Article II of the Agreement of March 29, 1984 to delete land disposal of source, by product and special nuclear material received from other persons from the list of materials and activities over which the Commission continues to retain regulatory authority and responsibility.

3. Specifies the effective date of the amended agreement.

C. Utah Code Annotated (UCA) 26-1-27 through 26-1-29 authorizes the State Department of Health to issue licenses to, and perform inspections of (see, also, UCA 26-23-8), users of radioactive materials under the 1984 agreement and otherwise carry out a total radiation control program. Utah Radiation Control Rules UCA-10 through UCA-80 adopted November 8, 1982 under authority of 26-1-27 through 26-1-29 Utah Code Annotated 1953, as amended, provide standards, licensing, inspection, enforcement and administrative procedures for agreement and non-agreement materials. These regulations have been determined to be compatible with the Commission's regulations. Utah Radiation Control Rules R447-10 through R447-70 were amended and recodified in July 1989. Regulations R447-25 were adopted in July 1988 for licensing requirements for land disposal of radioactive waste.

D. On March 29, 1984, under enabling legislation in UCA 26-1-29, Utah assumed regulatory authority for byproduct material as defined in section 11e.(1) of the Act, source material and special nuclear material in quantities not sufficient to form a critical mass. The program audits conducted since that time have resulted in an NRC finding that the Utah radiation control program is compatible with that of the NRC and is adequate to protect public health and safety. In addition to Utah's agreement program, Utah is involved in several environmental radiation issues including monitoring indoor radon, monitoring uranium mill tailings, particularly at the

Vitro uranium mill, and monitoring and assessment of the State environmental program. In addition, the Department issued to Envirocare of Utah, Inc., a license to receive, store, and dispose, by shallow land burial, naturally occurring radioactive material (NORM) waste with a radium-226 concentration not to exceed 2,000 picocuries per gram. NORM material is not regulated by the Nuclear Regulatory Commission.

E. The State's proposed programs for low-level radioactive waste disposal are assessed under Criteria numbers 9, "Radioactive Waste Disposal" and 20 "Qualification of Regulatory and Inspection Personnel." Additional criteria relating to prior evaluation of uses of radioactive materials, inspection and administration,<sup>2</sup> are addressed as appropriate to supplement information found in the staff assessment of the original Utah proposed agreement published in the **Federal Register** on December 30, 1983 (48 FR 57674-57684).

## II. NRC Staff Assessment of the Proposed Amendment to Utah Program for Control of Agreement Materials

Reference: Criteria for Guidance of states and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement.<sup>3</sup>

### Objectives

#### 9. Radioactive Waste Disposal.

(a) Waste disposal by material users. The standards for the disposal of radioactive materials into the air, water and sewer, and burial in the soil shall be in accordance with 10 CFR part 20. Holders of radioactive material desiring to release or dispose of quantities or concentrations of radioactive materials in excess of prescribed limits shall be required to obtain special permission from the appropriate regulatory authority.

Requirements for transfer of waste for the purpose of ultimate disposal at a land disposal facility (waste transfer and manifest system) shall be in accordance with 10 CFR part 20.

The waste disposal standards shall include a waste classification scheme and provisions for waste form, applicable to waste generators, that is equivalent to that contained in 10 CFR part 61.

(b) Land Disposal of waste received from other persons. The State shall

<sup>1</sup> Criteria 13, "Prior Evaluation of Hazards and Uses Exceptions," 14, "Evaluation Criteria," 16, "Inspection, Purpose, Frequency," and 27, "Coverage, Amendments reciprocity."

<sup>2</sup> NRC Statement of Policy published in the **Federal Register** January 23, 1981 (46 FR 7540-7546). A correction was published July 16, 1981 (46 FR 36909) and a revision of Criterion 9 published in the **Federal Register** July 21, 1983 (48 FR 33376).

<sup>1</sup> A. Byproduct materials as defined in 11e.(1)

B. Byproduct materials as defined in 11e.(2)

C. Source materials; and

D. Special nuclear materials in quantities not sufficient to form a critical mass



promulgate regulations containing licensing requirements for land disposal of radioactive waste received from other persons which are compatible with the applicable technical definitions, performance objectives, technical requirements and applicable supporting sections set forth in 10 CFR part 61. Adequate financial arrangements (under terms established by regulation) shall be required of each waste disposal site licensee to ensure sufficient funds for decontamination, closure and stabilization of a disposal site. In addition, Agreement State financial arrangements for long-term monitoring and maintenance of a specific site must be reviewed and approved by the Commission prior to relieving the site operator of licensed responsibility (section 151(a)(2), Pub. L. 97-425).

The Utah regulations contain provisions relating to the disposal of radioactive materials into the air, water and sewer and burial in soil which are essentially uniform with those of 10 CFR part 20. Waste transfer and manifest system requirements for transfer of waste for ultimate disposal at a land disposal facility are included in the Utah regulations. The waste disposal requirements include a waste classification scheme and provisions for waste form equivalent to that in 10 CFR part 61.

The Utah regulations provide for land disposal of low-level radioactive waste received from other persons which are compatible with the applicable technical definitions, performance objectives, technical requirements and supporting sections set out in 10 CFR part 61. The Utah regulations include provisions for financial arrangements for decontamination, closure and stabilization. Under the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425), the financial arrangements for long term monitoring and maintenance at specific sites in Utah will be subject to Commission review and approval prior to Utah relieving the site operator of licensed responsibility.

References: URC-R447-15-310, URC-R447-15-302, URC-R447-15-303, URC-R447-304, URC-R447-15-304, URC-R447-15-306, URC-R447-15-307, URC-R447-15-308, URC-R447-15-309, URC-R447-15-311, URC-R447-25; Section 151(a)(2), Pub. L. 97-425.

#### *Prior Evaluation of Uses of Radioactive Materials*

#### 13. Prior Evaluation of Hazards and Uses, Exceptions

In the present state of knowledge, it is necessary in regulating the possession and use of byproduct, source and

special nuclear materials that the State regulatory authority require the submission of information on, and evaluation of, the potential hazards and the capability of the user or possessor prior to his receipt of the materials. This criterion is subject to certain exceptions and to continuing reappraisal as knowledge and experience in the atomic energy field increase. Frequently there are, and increasingly in the future there may be, categories of materials and uses as to which there is sufficient knowledge to permit possession and use without prior evaluation of the hazards and the capability of the possessor and user. These categories fall into two groups—those materials and uses which may be completely exempt from regulatory controls, and those materials and uses in which sanctions for misuse are maintained without pre-evaluation of the individual possession or use. In authorizing research and development or other activities involving multiple uses of radioactive materials, where an institution has people with extensive training and experience, the State regulatory authority may wish to provide a means for authorizing broad use of materials without evaluating each specific use.

Prior to the issuance of a specific license for the disposal of radioactive materials, the Utah Bureau of Radiation Control will require the submission of information on, and will make an evaluation of, the potential hazards of such uses, and the capability of the applicant.

References: URC-447-25, Utah Program Statement, section III.D "Procedures for Review of a Low-Level Radioactive Waste Disposal License Application."

#### 14. Evaluation Criteria

In evaluating a proposal to use radioactive materials, the regulatory authority shall determine the adequacy of the applicant's facilities and safety equipment, his training and experience in the use of the materials for the purpose requested, and his proposed administrative controls. States should develop guidance documents for use by license applicants. This guidance should be consistent with NRC licensing and regulatory guides for various categories of licensed activities.

In evaluating a proposal for disposal of radioactive material, the Utah Bureau of Radiation Control will make the findings required by URC-R447-25-11, including, among other, findings that the issuance of the license will not constitute an unreasonable risk to the health and safety of the public and that the applicant is qualified by reason of

training and experience to carry out the disposal operations requested in a manner that protects health and minimizes danger to life or property.

Other special requirements for the issuance of specific licenses are contained in the regulations.

References: URC-R447-25, *see*, especially, R447-25-11, Utah Program Statement, Section III.D. "Procedures for Review of a Low-Level Radioactive Waste Disposal License Application."

#### *Inspection*

#### 16. Purpose, Frequency

The possession and use of radioactive materials shall be subject to inspection by the regulatory authority and shall be subject to the performance of tests, as required by the regulatory authority. Inspection and testing is conducted to determine and to assist in obtaining compliance with regulatory requirements. Frequency of inspection shall be related directly to the amount and kind of material and type of operation licensed, and it shall be adequate to insure compliance.

Utah low-level waste disposal licensees will be subject to inspection by the Bureau of Radiation Control. Upon instruction from the Bureau, licensees shall perform or permit the Bureau to perform such reasonable tests and surveys as the Bureau deems appropriate or necessary. The frequency of inspections is dependent upon the type and scope of the licensed activities and will be at least as frequent as inspections of similar licensees by NRC. Generally, inspections will be unannounced.

References: Utah Program Statement, section III.E "Compliance Program for a Low-Level Radioactive Waste Disposal Facility."

#### *Personnel*

#### 20. Qualifications of Regulatory and Inspection Personnel

The regulatory agency shall be staffed with sufficient trained personnel. Prior evaluation of applications for licenses or authorizations and inspection of licensees must be conducted by persons possessing the training and experience relevant to the type and level of radioactivity in the proposed use to be evaluated and inspected. This requires competency to evaluate various potential radiological hazards associated with the many uses of radioactive material and includes concentrations of radioactive materials in air and water, conditions of shielding, the making of radiation measurements, knowledge of radiation instruments—



their selection, use, and calibration—laboratory design, contamination control, other general principles and practices of radiation protection, and use of management controls in assuring adherence to safety procedures. In order to evaluate some complex cases, the State regulatory staff may need to be supplemented by consultants or other State agencies with expertise in geology, hydrology, water quality, radiobiology, and engineering disciplines.

To perform the functions involved in evaluation and inspection, it is desirable that there be personnel educated and trained in the physical and/or life sciences, including biology, chemistry, physics and engineering, and that the personnel have had training and experience in radiation protection. For example, the person who will be responsible for the actual performance of evaluation and inspection of all of the various uses of byproduct, source and special nuclear materials which might come to the regulatory body should have substantial training and extensive experience in the field of radiation protection. It is desirable that such a person have a bachelor's degree or equivalent in the physical or life sciences, and specific training in radiation protection.

It is recognized that there will also be persons performing a more limited function in evaluation and inspection. These persons will perform the day-to-day work of the regulatory program and deal with both routine situations as well as some which will be out of the ordinary. These persons should have a bachelor's degree or equivalent in the physical or life sciences, training in health physics, and approximately two years of actual work experience in the field of radiation protection.

The foregoing are considered desirable qualifications for the staff who will be responsible for the actual performance of evaluation and inspection. In addition, there will probably be trainees associated with regulatory program who will have an academic background in the physical or life sciences as well as varying amounts of specific training in radiation protection but little or no actual work experience in this field. The background and specific training of these persons will indicate to some extent their potential role in the regulatory program. These trainees, of course, could be used initially to evaluate and inspect those applications of radioactive materials which are considered routine or more standardized from the radiation safety standpoint, for example, inspection of industrial gauges, small research

programs, and diagnostic medical programs. As they gain experience and competence in the field, trainees could be used progressively to deal with the more complex or difficult types of radioactive material applications. It is desirable that such trainees have a bachelor's degree or equivalent in the physical or life sciences and specific training in radiation protection. In determining the requirement for academic training of individuals in all of the foregoing categories proper consideration should be given to equivalent competency which has been gained by appropriate technical and radiation protection experience.

It is recognized that radioactive materials and their uses are so varied that the evaluation and inspection functions will require skills and experience in the different disciplines which will not always reside in one person. The regulatory authority should have the composite of such skills either in its employ or as its command, not only for routine functions, but also for emergency cases.

*Licensing and Regulation of Permanent Disposal of Low-Level Radioactive Waste—(a) Number of Personnel—* (a) *Number of Personnel.* There are approximately 230 specific licenses in the State of Utah. The Bureau of Radiation Control has responsibility for the low-level waste (LLW) management regulatory program as a joint function of Radioactive Materials and Machine Licensing Section and Environmental Monitoring and Mill Tailings Management Section. The assessment of the regulatory framework is included under Criterion 9, "Radioactive Waste Disposal." The Bureau of Radiation Control has identified seven staff members who will provide supervision, technical support and administrative assistance during the various phases of regulating a licensed low-level waste disposal facility. These personnel and summaries of their duties are:

*Larry F. Anderson:* Director, Bureau of Radiation Control. Responsible for administration of Bureau programs.

*Mark S. Day:* Environmental Health Engineer. Responsible for the Utah's inactive uranium mill tailings remedial action project.

*Dane L. Finerfrock:* Environmental Health Manager, Environmental Monitoring and Mill Tailings Management Section. Responsible for radon-in-residences monitoring, statewide environmental radiation monitoring, licensing and inspection of low-level radioactive waste disposal facilities, and inactive

uranium mill tailings remedial action programs.

*Blaine N. Howard:* Health Physicist. Responsible for licensing and inspection in materials program.

*John D. Hultquist:* Environmental Health Scientist. Responsible for inspection of low-level waste disposal facilities, environmental monitoring and inactive uranium mill tailings remedial action project.

*Craig W. Jones:* Environmental Health Manager, Radioactive Materials and Machine Licensing Section. Responsible for the Agreement State program including licensing and inspection of low-level disposal facilities.

*Raymond G. Nelson:* Environmental Health Scientist. Responsible for regulation of low-level waste disposal facilities, environmental monitoring and inactive uranium mill tailings remedial action project.

*Cindy Wignall:* Environmental Health Technician. Responsible for supporting both sections as a technical assistant in meeting the Bureau's goals.

In addition, Utah has identified staff with expertise in various disciplines within the Department and other State agencies for support during the pre-operational and licensing stage. Expertise in disciplines not provided by Utah personnel either on staff or covered by agreements with other State agencies will be provided by contracts with the State.

(b) *Training.* The academic and specialized short course training for those persons involved in the administration, licensing and inspection of low-level radioactive waste disposal facilities is shown below.

*Larry F. Anderson—B.S. Chemistry, MPA (Health), Brigham Young University.*

*NIOSH Course 549, Recognition, Evaluation, and Control of Occupational Hazards.* October 1972.

*NIOSH Course 582, Sampling and Evaluating Airborne Asbestos Dust.* April 10-12, 1973.

*Utah State Division of Health, Visible Emission Evaluation Course.* June 19, 1973.

*American Industrial Hygiene Association, Industrial Toxicology Seminar.* A 24-hour course ending April 30, 1975.

*OSHA, Fundamentals of Occupational Injury Investigation.* Short course ending April 1, 1977.

*U.S. Nuclear Regulatory Commission, Radiological Emergency Response Operation Training Course.* A 64-



- hour course ending January 27, 1978.
- U.S. Environmental Protection Agency, *Grants Administration Seminar*. A 16-hour course ending May 16, 1989.
- Safety International Training Center, *Hydrogen Sulfide and Equipment for Instructors*. A 12-hour course ending June 19, 1979.
- Rocky Mountain Center for Occupational and Environmental Health, University of Utah, *Health and Exposures in the Smelter Environment*. A 20-hour course ending March 29, 1980.
- U.S. Nuclear Regulatory Commission, *Medical Uses of Radionuclides*. A 40-hour course held in January 1984.
- U.S. Nuclear Regulatory Commission, *Industrial Radiography*. A 40-hour course held May 1985.
- Harvard School of Public Health, *Biological Effects of Ionizing Radiation*. A 40-hour course held in March 1989.
- Mark S. Day—B.S. Civil and Environmental Engineering, Utah State University. Center for Professional Advancement, *Hydraulic Conveying*. A 1-week course in 1974.
- University of California, *Resolution of Construction Claims*. A 1-week course in 1983.
- Management Consultants Incorporated, *Federal Procurement of Construction Projects*. A 1-week course in 1985.
- Air Force Institute of Technology, *Contingency Engineering*. A 2-week course in 1986.
- Air Force Institute of Technology, *Hazardous Waste Management*. A 2-week course in 1986.
- Dane L. Finerfrock—B.S. Meteorology, B.S. Biology, University of Utah. Oak Ridge Associated Universities, *Health Physics and Radiation Protection*. A 10-week course ending April 1981.
- U.S. Nuclear Regulatory Commission, *Radiological Emergency Response Operation Training Course*. A 64-hour course ending August 8, 1980.
- U.S. Nuclear Regulatory Commission, *Safety Aspects of Industrial Radiography*. A 40-hour course held in August 17, 1980.
- Western Interstate Energy Board, *Workshop on Low-Level Radioactive Waste*. A 16-hour course ending July 16, 1980.
- U.S. Department of Health, Education and Welfare, *Basic Course for Investigators: Diagnostic X-Ray Surveillance*. A 80-hour course ending March 14, 1980.
- U.S. Nuclear Regulatory Commission, *Introduction Licensing Practices and Procedures*. A 80-hour course ending in September, 1979.
- U.S. Nuclear Regulatory Commission, *Transportation of Radioactive Materials*. A 40-hour course ending in November 16, 1984.
- U.S. Nuclear Regulatory Commission, *License Inspection Procedures*. A 40-hour course ending in June 18, 1985.
- U.S. Environmental Protection Agency, *Reducing Radon in Structures*. A 24-hour course ending in March 1989.
- Blaine N. Howard—B.S. Math and Physics, Ricks College. M.S. Radiological Health, New York University. M.S. Physics and Math, Brigham Young University. Bureau of Radiological Health, *Medical X-Ray Protection*. Held October 30-November 10, 1972.
- U.S. Nuclear Regulatory Commission, *Radiological Emergency Response Operation Training Course*. A 64-hour course held in 1978.
- National Legislative Conference, *States Role in Radioactive Material Management*. Held December 9-11, 1974.
- U.S. Environmental Protection Agency, *Drinking Water Regulations and Radioanalytical Workshop*. Held January 10-12, 1978.
- X-Ray Workshop*, Richfield, Utah. March 14-15, 1979.
- Actinides in Man and Animals Workshop*, Snowbird, Utah. October 15-17, 1979.
- U.S. Nuclear Regulatory Commission, *Medical Uses of Radionuclides*. A 40-hour course ending September 12, 1980.
- NWTS Annual Information Meeting, Columbus, Ohio. December 8-10, 1980.
- Waste Management 1981—American Nuclear Society, Tucson, Arizona. February 23-27, 1981.
- U.S. Nuclear Regulatory Commission, *Introduction Licensing Practices and Procedures*. A 80-hour course ending in September 1982.
- U.S. Nuclear Regulatory Commission, *Inspection Procedures*. A 40-hour course ending in July 30, 1982.
- U.S. Nuclear Regulatory Commission, *Radon Monitoring*. A 40-hour course ending in November 1982.
- Conference of Radiation control Program Directors, *Radiation Instruments*. A 24-hour course ending September 1983.
- U.S. Nuclear Regulatory Commission, *Gas and Oil Well Logging*. A 40-hour course ending in November 1988.
- U.S. Nuclear Regulatory Commission, *Safety Aspects of Industrial Radiography*. A 40-hour course ending September 1989.
- John D. Hultquist—B.S. Environmental Science/Biology, University of Tennessee.
- U.S. Environmental Protection Agency, *Basic Risk and Decision Making*. A 16-hour course ending in March 1988.
- Utah Division of Comprehensive Emergency Management, *Fundamental Course for Radiological Monitors*. An 8-hour course ending March 1989.
- U.S. Environmental Protection Agency, *Reducing Radon in Structures*. A 24-hour course ending in March 1989.
- U.S. Environmental Protection Agency, *RCRA Ground Water Monitoring*. A 24-hour course ending in April 1989.
- Oak Ridge Associated Universities, *Health Physics and Radiation Protection*. A 5-week course ending August 1989.
- U.S. Department of Energy, *First Responders WIPP Training*. An 8-hour course ending August 1989.
- U.S. Environmental Protection Agency, *Hazardous Material Response for First Responders*. A 40-hour course ending in September 1989.
- Craig W. Jones—B.S. Biology, M.S.P.H. (Industrial Hygiene), University of Utah.
- U.S. Nuclear Regulatory Commission, *Radiological Emergency Response Operation Training Course*. A 64-hour course ending August 8, 1980.
- Department of Health and Human Services, *Radiopharmaceutical Quality Assurance*. A 16-hour course ending November 1984.
- U.S. Nuclear Regulatory Commission, *Inspection Procedures*. A 40-hour course ending in February 1985.
- U.S. Environmental Protection Agency, *Air Surveillance for Hazardous Materials*. A 40-hour course ending in April 1985.
- U.S. Nuclear Regulatory Commission, *Medical Uses of Radionuclides*. A 40-hour course ending June 1985.
- Oak Ridge Associated Universities, *Health Physics and Radiation Protection*. A 5-week course ending August 1985.
- U.S. Nuclear Regulatory Commission, *Introduction Licensing Practices and Procedures*. A 40-hour course ending in September 1985.
- U.S. Nuclear Regulatory Commission, *Radiation Protection Engineering*. A 40-hour course ending in November 1986.



U.S. Nuclear Regulatory Commission, *Gas and Oil Well Logging*. A 40-hour course ending in November 1987.

U.S. Nuclear Regulatory Commission, *Transportation of Radioactive Materials*. A 40-hour course ending in August 1988.

Raymond G. Nelson—Completed 2 years towards B.S. in Geophysics, University of Utah.

U.S. Environmental Protection Agency, *Basic Risk and Decision Making*. A 16-hour course ending in September 1988.

Utah Division of Comprehensive Emergency Management, *Fundamental Course for Radiological Monitors*. An 8-hour course ending March 1989.

U.S. Environmental Protection Agency, *Reducing Radon in Structures*. A 24-hour course ending in March 1989.

U.S. Environmental Protection Agency, *RCRA Ground Water Monitoring*. A 24-hour course ending in April 1989.

U.S. Nuclear Regulatory Commission, *Inspection Procedures*. A 40-hour course ending in June 1989.

U.S. Nuclear Regulatory Commission, *Transportation of Radioactive Materials*. A 40-hour course ending in August 1989.

U.S. Department of Energy, *First Responders WIPP Training*. An 8-hour course ending in August 1989.

U.S. Environmental Protection Agency, *Hazardous Material Response for First Responders*. A 40-hour course ending in September 1989.

Reference: Utah Program Statement, section II.D "Low-Level Radioactive Waste Management," section IV "Staffing, Supervision, and Equipment for a Low-Level Waste Program," and Appendix E.

#### Administration

#### 27. Coverage, Amendments, Reciprocity

The proposed amendment to the Utah agreement provides for the assumption of regulatory authority over land disposal of source, byproduct and special nuclear material received from other persons.

Reference: Proposed Amendment to Agreement, section I.

#### III. Staff Conclusion

Section 274d of the Atomic Energy Act of 1954, as amended, states:

The Commission shall enter into an agreement under subsection b of this section with any State if—

(1) The Governor of that State certifies that

the State has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement, and that the State desires to assume regulatory responsibility for such materials; and

(2) the Commission finds that the State program is in accordance with the requirements of subsection o. and in all other respects compatible with the Commission's program for the regulation of such materials, and that the State program is adequate to protect the public health and safety with respect to the materials covered by the proposed agreement.

The staff has concluded that the State of Utah meets the requirements of section 274 of the Act. The State's statutes, regulations, personnel, licensing, inspection and administrative procedures are compatible with those of the Commission and adequate to protect the public health and safety with respect to the materials covered by the proposed amendment to the Utah agreement. Since the State is not seeking authority over uranium milling activities, subsection O. is not applicable to the proposed amendment to the Utah amended agreement.

Dated at Rockville, Maryland, this 7th day of November 1989.

For the U.S. Nuclear Regulatory Commission.

Carlton Kammerer,

Director, State, Local and Indian Tribe Programs, Office of Governmental and Public Affairs.

#### Appendix A

Amendment to Agreement Between the United States Nuclear Regulatory Commission and the State of Utah for Discontinuance of Certain Commission Regulatory Authority and Responsibility Within the State Pursuant to Section 274 of the Atomic Energy Act of 1954, as Amended

Whereas, the United States Nuclear Regulatory Commission (hereinafter referred to as the Commission) entered into an Agreement (hereinafter referred to as the Agreement of March 29, 1984) with the State of Utah under section 274 of the Atomic Energy Act of 1954, as amended (hereinafter referred to as the Act), which Agreement became effective on April 1, 1984, and provided for discontinuance of the regulatory authority of the Commission within the State under Chapters 6, 7, and 8 and Section 161 of the Act with respect to byproduct materials as defined in section 11e.(1) of the Act, source materials, and special nuclear materials in quantities not sufficient to form a critical mass; and

Whereas, the Governor of the State of Utah is authorized under Utah Code Annotated 26-1-29 to enter into this amendment to the Agreement of March 29, 1984, between the Commission and the State of Utah; and

Whereas, The Governor of the State of

Utah has requested this amendment in accordance with section 274 of the Act by certifying on (date to be inserted) that the State of Utah has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the land disposal within the State of source, byproduct and special nuclear material received from other persons and that the State desires to assume regulatory responsibility for such materials; and

Whereas, The Commission found on (date to be inserted), that the program for regulation of materials covered by the amendment is in accordance with the requirements of the Act and in all other respects compatible with the Commission's program for the regulation of such materials and is adequate to protect public health and safety; and

Whereas, The State and the Commission recognize the desirability and importance of cooperation between the Commission and the State in the formulation of standards for protection against hazards of radiation and in assuring that the State and Commission programs for protection against hazards of radiation will be coordinated and compatible; and

Whereas, this amendment to the Agreement of March 29, 1984, is entered into pursuant to the provisions of the Atomic Energy Act of 1954, as amended.

Now, therefore, it is hereby agreed between the Commission and the Governor of the State, acting on behalf of the State, as follows:

Section 1. Article I of the Agreement of March 29, 1984, is amended by deleting "and" at the end of paragraph B., by adding "and," after the words "critical mass" in paragraph C., and by inserting the following new paragraph immediately after paragraph C.:

D. The land disposal of source, byproduct and special nuclear material received from other persons.

Section 2. Article II of the Agreement of March 29, 1984, is amended by deleting paragraph E. and by redesignating paragraph F. as paragraph E.

This amendment shall become effective on (date to be inserted), and shall remain in effect unless and until such time as it is terminated pursuant to Article VIII of the Agreement of March 29, 1984.

Done at Salt Lake City, Utah, in triplicate, this \_\_\_\_\_ day of \_\_\_\_\_, 1989.

For the United States Nuclear Regulatory Commission.

Kenneth M. Carr,  
Chairman

For the State of Utah.

Norman H. Bangerter,  
Governor

[FR Doc. 89-26795 Filed 11-14-89; 8:45 am]

BILLING CODE 7590-01-M



[Docket No. 50-219]

**GPU Nuclear Corp.; Consideration of Issuance of Amendment to Facility Operating License and Opportunity for Hearing**

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-16, issued to GPU Nuclear Corporation (GPUN, the licensee), for operation of the Oyster Creek Nuclear Generating Station located in Ocean County, New Jersey.

The amendment would revise Technical Specifications 3.17 and 4.17. Specifically, the changes are as follows: (1) Two Control Room HVAC Systems shall be operable during all modes of operation; (2) addition of new limiting conditions for operation for the control room and (3) delete surveillance to determine the makeup air plus infiltration air (less than or equal to 2000 cfm) to the Control Room envelope for each Control Room HVAC system.

Prior to issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

By December 22, 1989, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the Local Public Document Room located at Ocean County Library, Reference Department, 101 Washington Street, Toms River, New Jersey 08753. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) The nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to

intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to John F. Stolz: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this **Federal Register** notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Mr. Ernest L. Blake, Jr., Esquire, Shaw, Pittman, Potts and Trowbridge, 2000 N Street, NW., Washington, DC 20037, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

If a request for a hearing is received, the Commission's staff may issue the amendment after it completes its technical review and prior to the completion of any required hearing if it publishes a further notice for public comment of its proposed finding of no significant hazards consideration in accordance with 10 CFR 50.91 and 50.92.

For further details with respect to this action, see the application for amendment dated October 18, 1989, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the Local Public Document Room, Ocean County Library, Reference Department, 101 Washington Street, Toms River, New Jersey 08753.



Dated at Rockville, Maryland, this 15th day of November 1989.

For the Nuclear Regulatory Commission.

John F. Stolz,

Director, Project Directorate I-4, Division of Reactor Projects—I/II, Office of Nuclear Reactor Regulation.

[FR Doc. 89-27444 Filed 11-21-89; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-354]

**Public Service Electric and Gas Co.;  
Consideration of Issuance of  
Amendment to Facility Operating  
License and Opportunity for Hearing**

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-57, issued to the Public Service Electric and Gas Company (the licensee), for operation of the Hope Creek Generating State located in Salem County, New Jersey. The application for amendment is dated October 11, 1989.

The amendment would revise Technical Specification 5.6.3 to permit the installation of sufficient rack modules to bring spent fuel storage capacity up to the original design value, i.e. to increase spent fuel storage capacity from the current limit of 1290 assemblies to 4006 assemblies.

Prior to issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

By December 22, 1989, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the Local Public Document Room located at Pennsville Public Library, 190 S. Broadway, Pennsville, New Jersey 08070. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the

Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) The nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first pre-hearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendments under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these

requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 2120 L Street, NW, Washington, DC, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Walter R. Butler: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this *Federal Register* notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Conner and Wetterhahn, 1747 Pennsylvania Avenue, Washington, DC 20006, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

If a request for a hearing is received, the Commission's staff may issue the amendment after it completes its technical review and prior to the completion of any required hearing if it publishes a further notice for public comment of its proposed finding of no significant hazards considerations in accordance with 10 CFR 50.91 and 50.92.

The Commission hereby provides notice that this is a proceeding on an application for a license amendment falling within the scope of section 134 of the Nuclear Waste Policy Act of 1982 (NWSA), 42 U.S.C. § 10154. Under section 134 of the NWSA, the



Commission, at the request of any party to the proceeding, must use hybrid hearing procedures with respect to "any matter which the Commission determines to be in controversy among the parties." The hybrid procedures in section 134 provide for oral argument on matters in controversy, preceded by discovery under the Commission's rules, and the designation, following argument, of only those factual issues that involve a genuine and substantial dispute, together with any remaining questions of law, to be resolved in an adjudicatory hearing. Actual adjudicatory hearings are to be held on only those issues found to meet the criteria of section 134 and set for hearing after oral argument.

The Commission's rules implementing section 134 of the NWPA are found in 10 CFR part 2, subpart K, "Hybrid Hearing Procedures for Expansion of Spent Nuclear Fuel Storage Capacity at Civilian Nuclear Power Reactors" (published at 50 FR 41662, October 15, 1985) 10 CFR 2.1101 *et seq.* Under those rules, any party to the proceeding may invoke the hybrid hearing procedures by filing with the presiding officer a written request for oral argument under 10 CFR 2.1109. To be timely, the request must be filed within ten (10) days of an order granting a request for hearing or petition to intervene. (As outlined above, the Commission's rules in 10 CFR part 2, subpart G, and § 2.714 in particular, continue to govern the filing of requests for a hearing or petitions to intervene, as well as the admission of contentions). The presiding officer shall grant a timely request for oral argument. The presiding officer may grant an untimely request for oral argument only upon showing of good cause by the requesting party for the failure to file on time and after providing the other parties an opportunity to respond to the untimely request. If the presiding officer grants a request for oral argument, any hearing held on the application shall be conducted in accordance with the hybrid hearing procedures. In essence, those procedures limit the time available for discovery and require that an oral argument be held to determine whether any contentions must be resolved in an adjudicatory hearing. If no party to the proceeding requests oral argument, or if all untimely requests for oral argument are denied, then the usual procedures in 10 CFR part 2, subpart G apply.

For further details with respect to this action, see the application for amendment dated October 11, 1989, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC 20555, and at the Local Public

Document Room, Pennsville Public Library, 190 S. Broadway, Pennsville, New Jersey 08070.

Dated at Rockville, Maryland, this 15th day of November 1989.

For the Nuclear Regulatory Commission.  
Walter R. Butler,  
Director, Project Directorate I-2, Division of  
Reactor Projects I/II, Office of Nuclear  
Reactor Regulation.

[FR Doc. 89-27445 Filed 11-21-89; 8:45 am]

BILLING CODE 7590-01-M

## OFFICE OF GOVERNMENT ETHICS

### Public Information Collection Form Revision Submitted for OMB Approval

**AGENCY:** Office of Government Ethics.

**ACTION:** Notice of proposed revision of a public information collection form submitted to OMB for clearance.

**SUMMARY:** The Office of Government Ethics (OGE) has submitted to the Office of Management and Budget for approval, in accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. chapter 35), a proposed revised version of a form that collects information from the public.

**DATE:** Comments on this proposal should be received by December 22, 1989.

**ADDRESS:** Comments should be sent to Joseph F. Lackey, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Room 3002, Washington, DC 20503, telephone (202/FTS) 395-7316.

**FOR FURTHER INFORMATION CONTACT:** William E. Gressman, Office of Government Ethics, Suite 500, 1201 New York Avenue, NW, Washington, DC 20005-3917, telephone (202/FTS) 523-5757. A copy of OGE's request for approval from OMB, including the proposed revised form, may be obtained by contacting Mr. Gressman.

**SUPPLEMENTARY INFORMATION:** The Office of Government Ethics, formerly part of the Office of Personnel Management, is now a separate agency in the executive branch of the United States government. This separate agency status, effective October 1, 1989, was provided for in sections 3 and 10 of OGE's 1988 reauthorization legislation, Public Law 100-598, amending the Ethics in Government Act, 5 U.S.C. Appendix IV, section 401.

Section 205(b) of the Ethics in Government Act of 1978 (Pub. L. 95-521, as amended), 5 U.S.C. appendix III, § 205(b), sets forth certain requirements to be met by a person requesting to

inspect or obtain a copy of an SF 278 Executive Personnel Financial Disclosure Report filed by high-level executive branch officials. New proposed OGE Form 201, Request to Inspect or Receive Copies of SF 278, Financial Disclosure Report, will serve as the standardized application form for this purpose. This form is being converted from an Office of Personnel Management (OPM) form (old OPM Form 1401) to an Office of Government Ethics form (OGE Form 201) and a public burden statement is also being added. Approximately 360 forms are completed at OGE each year at three minutes per response for a total public burden of 18 hours. The OGE Form 201 will be locally reproducible by executive branch agencies for their own use.

Approved: November 17, 1989.

Donald E. Campbell,

Acting Director, Office of Government Ethics.

[FR Doc. 89-27465 Filed 11-21-89; 8:45 am]

BILLING CODE 6345-01-M

## PHYSICIAN PAYMENT REVIEW COMMISSION

### Commission Meeting

**AGENCY:** Physician Payment Review Commission.

**ACTION:** Notice of public meeting.

**SUMMARY:** The Physician Payment Review Commission will hold a public meeting on Thursday, November 30, 1989, from 9 a.m. to 5:30 p.m. and on Friday, December 1, 1989, beginning at 8:30 a.m. The meeting will be held at the Ramada Renaissance Hotel, 1143 New Hampshire Avenue NW., in the New Hampshire I and II meeting rooms. Among the topics to be discussed are: expenditure targets, geographic issues related to the fee schedule, options for covering professional liability premium costs in the fee schedule, strategies to improve medical practice, and beneficiary financial protection. An agenda will be available November 28.

**ADDRESS:** The Commission office is located in Suite 510, 2120 L Street NW., Washington, DC. The telephone number is 202/653-7220.

**FOR FURTHER INFORMATION CONTACT:** Lauren LeRoy, Deputy Director, 202/653-7220.

Paul B. Ginsburg,

Executive Director.

[FR Doc. 89-27411 Filed 11-21-89; 8:45 am]

BILLING CODE 6820-SE-M



**RAILROAD RETIREMENT BOARD****1990 Monthly Compensation Base and Other Determinations****AGENCY:** Railroad Retirement Board.**ACTION:** Notice.

**SUMMARY:** Pursuant to section 12(r)(3) of the Railroad Unemployment Insurance Act (Act) (45 U.S.C. 362(r)(3)), the Board gives notice of the following:

1. The monthly compensation base under section 1(k) of the Act is \$735 for months in calendar year 1990;
2. The amount described in section 1(k) of the Act as "2.5 times the monthly compensation base" is \$1,837.50 for base year (calendar year) 1990;
3. The amount described in section 2(c) of the Act as "an amount that bears the same ratio to \$775 as the monthly compensation base for that year as computed under section 1(i) of this Act bears to \$600" is \$949 for months in calendar year 1990;
4. The amount described in section 3 of the Act as "2.5 times the monthly compensation base" is \$1,837.50 for base year (calendar year) 1990;
5. The amount described in section 4(a-2)(i)(A) of the Act as "2.5 times the monthly compensation base" is \$1,837.50 with respect to disqualifications ending in calendar year 1990;
6. The maximum daily benefit rate under section 2(a)(3) of the Act is \$31 with respect to days of unemployment and days of sickness in registration periods beginning after June 30, 1990.

**DATES:** The determinations made in notices (1) through (5) are effective January 1, 1990. The determination made in notice (6) is effective for registration periods beginning after June 30, 1990.

**ADDRESS:** Secretary to the Board, Railroad Retirement Board, 844 Rush Street, Chicago, Illinois 60611.

**FOR FURTHER INFORMATION CONTACT:** Mary R. Bartik, Bureau of Research and Analysis, Railroad Retirement Board, 844 Rush Street, Chicago, Illinois 60611, telephone (312) 751-4786, (FTS) 386-4786.

**SUPPLEMENTARY INFORMATION:** The Board is required by section 12(r)(3) of the Railroad Unemployment Insurance Act (Act) (45 U.S.C. 362(r)(3)) as amended by Public Law 100-647, to publish by December 11, 1989, the computation of the calendar year 1990 monthly compensation base (section 1(i) of the Act) and amounts described in sections 1(k), 2(c), 3 and 4(a-2)(i)(A) of the Act which are related to changes in the monthly compensation base. Also, the Board is required to publish by June 11, 1990, the maximum daily benefit rate

under section 2(a)(3) of the Act for days of unemployment and days of sickness in registration periods beginning after June 30, 1990.

**Monthly Compensation Base**

For years after 1988, section 1(i) of the Act contains a formula for determining the monthly compensation base. Under the prescribed formula, the monthly compensation base increases by approximately two-thirds of the growth in average national wages. The monthly compensation base for months in calendar year 1990 shall be equal to the greater of (a) \$600 and (b)  $600 [1 + \{(A + 37,800)/56,700\}]$ , where A equals the amount of the applicable base with respect to tier 1 taxes for 1990 under section 3231(e)(2) of the Internal Revenue Code of 1986. Section 1(i) further provides that if the amount so determined is not a multiple of \$5, it shall be rounded to the nearest multiple of \$5.

The calendar year 1990 tier 1 tax base is \$50,400. Subtracting \$37,800 from \$50,400 produces \$12,600. Dividing \$12,600 by \$56,700 yields a ratio of 0.22222222. Adding one gives 1.22222222. Multiplying \$600 by the amount 1.22222222 produces the amount of \$733.33, which must then be rounded to \$735. Accordingly, the monthly compensation base is determined to be \$735 for months in calendar year 1990.

**Amounts Related to Changes in Monthly Compensation Base**

For years after 1988, sections 1(k), 2(c), 3 and 4(a-2)(i)(A) of the Act contain formulas for determining amounts related to the monthly compensation base.

Under section 1(k), remuneration earned from employment covered under the Act cannot be considered subsidiary remuneration if the employee's base year compensation is less than 2.5 times the monthly compensation base for months in such base year. Multiplying 2.5 by the calendar year 1990 monthly compensation base of \$735 produces \$1,837.50. Accordingly, the amount determined under section 1(k) is \$1,837.50 for calendar year 1990.

Under section 2(c), the maximum amount of normal benefits paid for days of unemployment within a benefit year and the maximum amount of normal benefits paid for days of sickness within a benefit year shall not exceed an employee's compensation in the base year. In determining an employee's base year compensation, any money remuneration in a month not in excess of an amount that bears the same ratio to \$775 as the monthly compensation

base for that year bears to \$600 shall be taken into account.

The calendar year 1990 monthly compensation base is \$735. The ratio of \$735 to \$600 is 1.225. Multiplying 1.225 by \$775 produces \$949. Accordingly, the amount determined under section 2(c) is \$949 for months in calendar year 1990.

Under section 3, an employee shall be a "qualified employee" if his base year compensation is not less than 2.5 times the monthly compensation base for months in such base year. Multiplying 2.5 by the calendar year 1990 monthly compensation base of \$735 produces \$1,837.50. Accordingly, the amount determined under section 3 is \$1,837.50 for calendar year 1990.

Under section 4(a-2)(i)(A), an employee who leaves work voluntarily without good cause is disqualified from receiving unemployment benefits until he has been paid compensation of not less than 2.5 times the monthly compensation base for months in the calendar year in which the disqualification ends. Multiplying 2.5 by the calendar year 1990 monthly compensation base of \$735 produces \$1,837.50. Accordingly, the amount determined under section 4(a-2)(i)(A) is \$1,837.50 for calendar year 1990.

**Maximum Daily Benefit Rate**

Section 2(a)(3) contains a formula for determining the maximum daily benefit rate for registration periods beginning after June 30, 1989, and after each June 30 thereafter. Under the prescribed formula, the maximum daily benefit rate increases by approximately two-thirds of the growth in average national wages. The maximum daily benefit rate for registration periods beginning after June 30, 1990, shall be equal to the greater of (a) \$30 and (b)  $25 [1 + \{(A + 600)/900\}]$ , where A equals the applicable base with respect to tier 1 taxes under section 3231(e)(2) of the Internal Revenue Code of 1986 divided by 60, with the quotient rounded down to the nearest multiple of \$100. Section 2(a)(3) further provides that if the amount so computed is not a multiple of \$1, it shall be rounded to the nearest multiple of \$1.

The calendar year 1990 tier 1 tax base is \$50,400. Dividing \$50,400 by 60 yields \$840. This amount is rounded down to \$800, the nearest multiple of \$100. Subtracting \$600 from \$800 produces \$200. The ratio of \$200 to \$900 is 0.22222222. Adding 1 produces 1.22222222. Multiplying \$25 by 1.22222222 produces \$30.56, which must then be rounded to \$31. Accordingly, the maximum daily benefit rate for days of unemployment and days of sickness



beginning in registration periods after June 30, 1990, is determined to be \$31.

Dated: November 14, 1989.

By Authority of the Board.

Beatrice Ezerski,

Secretary to the Board.

[FR Doc. 89-27428 Filed 11-21-89; 8:45 am]

BILLING CODE 7905-01-M

## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-27448; File No. SR-NYSE-89-38]

### Self-Regulatory Organizations; Filing and Order Granting Accelerated Approval of Proposed Rule Change by New York Stock Exchange, Inc. Relating to Extension of the Effectiveness of Auxiliary Closing Procedures for Expiration Fridays for an Additional Year

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), 15 U.S.C. 78s(b)(1), notice is hereby given that on November 13, 1989, the New York Stock Exchange, Inc. ("NYSE" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

#### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is proposing to extend the pilot program for auxiliary closing procedures for market-on-close ("MOC") orders for an additional year. These procedures were approved by the Commission on a pilot basis for one year beginning in November 1988 and extending through October 1989.<sup>1</sup>

The initial program specified auxiliary closing procedures for assisting in handling the order flow associated with the expiration of stock index futures, stock index options and options on stock index futures (collectively, "derivative instruments") in a list of pilot stocks.<sup>2</sup> These procedures were

made applicable on the one day a month that the derivative products expire ("expiration day").

In regard to the stocks subject to the auxiliary closing procedures, which supersede any rules or policies inconsistent with them, the superseding procedures preclude: (1) Entry of any MOC orders relating to the liquidation of any positions that relate to a trading strategy involving any derivative instrument after 3 p.m.<sup>3</sup> and (2) entry of other MOC orders after the imbalance publication unless they offset the imbalance.

#### II. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item III below and is set forth in sections A, B, and C below.

##### A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

The purpose of the proposed rule change is to extend the effectiveness of the auxiliary closing procedures for MOC orders for an additional year.

Since September 1986, the Exchange has used auxiliary closing procedures for use on days when stock index futures, stock index options and options on stock index futures expire concurrently. Since November, 1988, the Exchange has used these auxiliary closing procedures for each monthly expiration Friday.<sup>4</sup> Currently, these procedures require the entry by 3 p.m. of all MOC orders in positions relating to any strategy involving any index derivative product.<sup>5</sup> In addition, the procedures require the specialist to make public MOC order imbalances of 50,000 shares or more in the pilot stocks as soon as possible after 3 p.m. and then again after 3:30 p.m. Any MOC orders entered after 3:30 p.m. must offset a published imbalance.

At the time the procedures were approved by the Commission in November 1988, the Exchange had

hoped that during the pilot year all options and futures markets would base the settlement price of their derivative products on opening, rather than on closing, Exchange prices. Therefore, because the settlement price of certain derivative products continues to be based on closing NYSE prices, the Exchange believes it is appropriate to extend the pilot program for an additional year. These procedures have proven to be an effective and useful means of reducing some of the volatility related to index derivative product trading strategies which may result from entering MOC orders to liquidate stock positions. Accordingly, the Exchange believes it would be appropriate to continue to use these procedures on expiration Fridays.

The statutory basis under the Act for this proposed rule change is section 6(b)(5), which requires that the rules of the Exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

##### B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

##### C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

The Exchange has neither solicited nor received written comments on the proposed rule change.

#### III. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549.

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying

<sup>1</sup> See Securities Exchange Act Releases No. 26293 (November 17, 1988), 53 FR 47599 and No. 26408 (December 29, 1988), 54 FR 343 (approving File No. SR-NYSE-88-37).

<sup>2</sup> Currently, there are 52 pilot stocks on the list consisting of the 50 highest-weighted Standard & Poor's 500 Index stocks, based on market values as of November 6, 1989, and any of the 20 Major Market Index stocks not among the 50 highest-weighted stocks.

<sup>3</sup> The cut-off time for the pilot program was recently changed from 3:30 to 3:00. See Securities Exchange Act Release No. 27040 (July 17, 1989), 54 FR 30806 (approving File No. SR-NYSE-89-11).

<sup>4</sup> See note 1, supra.

<sup>5</sup> See note 3, supra.



in the Commission's Public Reference Section, 450 Fifth Street NW., Washington, DC 20549.

Copies of such filing will also be available for inspection and copying at the principal office of the NYSE. All submissions should refer to File No. SR-NYSE-89-38 and should be submitted by December 13, 1989.

#### IV. Commission's Findings and Order Granting Accelerated Approval of Proposed Rule Change

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a securities exchange, and, in particular, the requirements of section 6<sup>6</sup> and the rules and regulations thereunder. The MOC procedures described herein have been utilized on previous quarterly expirations dating back to September 1986 and on monthly expirations on a pilot basis since November 1988.<sup>7</sup> These procedures were part of efforts by the Commission and the self-regulatory organizations to address stock market volatility associated with the expiration of index derivative products traded in conjunction with stocks as part of index derivative instrument trading strategies. By requiring early submission of MOC orders and disseminating imbalances, the NYSE has been able to attract contra-side interest to alleviate imbalances caused by the liquidation of stock positions related to index derivative product trading strategies. The procedures have proven to be an operational success, and have contributed significantly to the smooth handling of the increased order flow associated with expirations.

The Commission finds good cause for approving the proposed rule change prior to the thirtieth day after the date of publication of notice of filing thereof. This will permit the pilot program to continue on an uninterrupted basis, and will allow the Exchange to apprise interested parties of the pilot program extension in advance of the November 17, 1989 expiration. In addition, the procedures proposed here are the identical procedures utilized by the NYSE on earlier expirations, and are intended to reduce excessive market volatility at the close.<sup>8</sup>

*It is therefore ordered*, pursuant to section 19(b)(2) of the Act,<sup>9</sup> that the proposed rule change is approved for a one-year period ending on October 31, 1990.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.<sup>10</sup>

Dated: November 16, 1989.

Jonathan G. Katz,

Secretary.

[FR Doc. 89-27443 Filed 11-21-89; 8:45 am]

BILLING CODE 8010-01-M

[Rel No. IC-17223; 812-7241]

#### PNC Fund; Application

November 15, 1989.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of application for exemption under the Investment Company Act of 1940 ("1940 Act").

*Applicant:* The PNC Fund (formerly, NCP Funds).

*Relevant 1940 Act Sections:* Exemption requested under section 6(c) from section 12(d)(3) of the 1940 Act.

*Summary of Application:* The Applicant seeks an order permitting the Applicant, its International Portfolio, Capital Appreciation Portfolio (formerly, the Equity Portfolio) and any other present or future investment portfolio of the Applicant to invest in securities of foreign securities firms.

*Filing Date:* The application was filed on February 13, 1989 and amended on November 13, 1989.

*Hearing or Notification of Hearing:* An order granting the application will be issued unless the Commission orders a hearing. Interested persons may request a hearing by writing the SEC's Secretary and serving the Applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 11, 1989, and should state the nature of the requester's interest, the reason for the request, and the issues contested. Hearing requests also should be accompanied by proof of service on the Applicant in the form of affidavits or, for lawyers, certificates of service. Requests for notification of a hearing may be made by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 5th Street, NW., Washington, DC 20549. Applicant, c/o Jeffrey A. Dalke, Esq. or Eric C. Freed, Esq., Drinker, Biddle &

(December 28, 1988), 54 FR 343 and No. 27040 (July 17, 1989), 54 FR 30806, respectively.

<sup>9</sup> 15 U.S.C. 78s(b)(2) (1982).

<sup>10</sup> 17 CFR 200.30-3(a)(12) (1989).

Reath, 1100 PNB Building, Broad & Chestnut Streets, Philadelphia, Pennsylvania 19107.

**FOR FURTHER INFORMATION CONTACT:** Staff Attorney Cathey Baker, (202) 272-3033 or Branch Chief Karen L. Skidmore, (202) 272-3023 (Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application is available for a fee. One may obtain a copy by going to the SEC's Public Reference Branch or by telephoning the SEC's commercial copier, (800) 231-3282 (in Maryland (301) 258-4300).

#### Applicant's Representations:

1. The Applicant, a Massachusetts business trust, is an open-end management investment company registered under the 1940 Act. The Applicant is currently comprised of seven investment portfolios. The investment objective of the International Portfolio is long-term capital appreciation and, secondarily, income. The International Portfolio invests primarily in equity and debt securities of foreign issuers. The investment objective of the Capital Appreciation Portfolio (formerly, the Equity Portfolio) is long-term growth of capital and, secondarily, current income and dividend growth potential. The Capital Appreciation Portfolio invests primarily in high quality equity securities. The investment adviser of the International and Capital Appreciation Portfolios is Provident Institutional Management Corporation, a wholly-owned subsidiary of Provident National Bank. Provident Capital Management, Inc. serves as sub-adviser to the International Portfolio and The Central Trust Company, N.A. serves as sub-adviser to the Capital Appreciation Portfolio.

2. In order to diversify the Portfolios further, the Applicant proposes investments in equity and convertible debt securities of foreign issuers that, in their most recent fiscal year, derived more than 15% of their gross revenues from their activities as a broker, dealer, underwriter or investment adviser. The Applicant will comply with each of the requirements of proposed amended Rule 12d3-1 under the 1940 Act, Investment Company Act Release No. 17096 (August 3, 1989) ("Proposed Amended Rule 12d3-1"), including those requirements for foreign securities set forth in Proposed Amended Rule 12d3-1(b)(5).

#### Applicant's Legal Analysis:

3. Section 12(d)(3) of the 1940 Act makes it unlawful for a registered investment company to purchase

<sup>6</sup> 15 U.S.C. 78f (1982).

<sup>7</sup> See Securities Exchange Act Release No. 26408 (December 29, 1988), 54 FR 343 (approving File No. SR-NYSE-88-37).

<sup>8</sup> No comments were received on the proposed rule which implemented these procedures, nor on the proposed rule change which changed the cut-off time for these procedures from 3:30 to 3:00. See Securities Exchange Act Releases No. 26408



securities which are issued by a broker, dealer or underwriter of securities unless the issuer is, in turn, wholly owned by investment companies. Rule 12d3-1 currently provides in relevant part that an investment company may purchase securities issued by companies deriving more than 15% of their gross revenues from securities-related activities if certain quantitative and qualitative conditions are met. In the case of equity securities, one qualitative condition provides that the stock acquired be a "margin security," as defined in Regulation T issued by the Board of Governors of the Federal Reserve Board. The "margin security" requirement of Rule 12d3-1 limits the ability of an investment company to invest in securities issued by foreign securities companies. Proposed Amended Rule 12d3-1 is based upon the Commission's determination that broader exemptive relief from section 12(d)(3) is appropriate.

#### *Applicant's Conditions:*

The Applicant agrees to the following condition to any order granting the requested relief:

1. The Applicant will comply with the provisions of Rule 12d3-1, as such rule is currently proposed (Investment Company Act Release No. 17096, August 3, 1989; 54 FR 33027, August 11, 1989), and as it may be repropounded, adopted or amended.

For the Commission, by the Division of Investment Management, under delegated authority.

Jonathan G. Katz,  
Secretary.

[FR Doc. 89-27441 Filed 11-21-89; 8:45 am]

BILLING CODE 8010-01-M

[Rel. No. IC-17221; 811-1466]

#### **Pioneer Scout; Application for Deregistration**

November 15, 1989.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of Application for Deregistration under the Investment Company Act of 1940 (the "1940 Act").

*Applicant:* Pioneer Scout ("Applicant").

*Relevant 1940 Act Section:* Section 8(f).

*Summary of Application:* Applicant seeks an order declaring that it has ceased to be an investment company under the 1940 Act.

*Filing Dates:* The application on Form N-8F was filed on July 6, 1989.

#### *Hearing or Notification of Hearing:*

An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving Applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on December 14, 1989, and should be accompanied by proof of service on the Applicant, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 Fifth Street, NW., Washington, DC 20549. Applicant, 60 State Street, Boston Massachusetts 02109.

**FOR FURTHER INFORMATION CONTACT:** Patricia Copeland, Legal Technician, (202) 272-3009, or Max Berueffy, Branch Chief, (202) 272-3016 (Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** Following is a summary of the application; the complete application is available for a fee from either the SEC's Public Reference Branch in person or the SEC's commercial copier (800) 231-3282 (in Maryland (301) 258-4300).

#### *Applicant's Representations*

1. Applicant is organized as a Massachusetts business trust and is registered as an open-end diversified management investment company under the 1940 Act. On May 16, 1984, Applicant filed a Notification of Registration on Form N-8A pursuant to section 8(a) of the 1940 Act. On that same date, Applicant filed a registration statement on Form N-1A under the Securities Act of 1933 with respect to an indefinite number of Applicant's common shares of beneficial interest. Applicant's registration statement was declared effective on July 16, 1984. Applicant has never made a public offering of its securities.

2. Applicant was organized as a wholly-owned subsidiary of Pioneer Fund, Inc. (812-5693), a registered investment company. See Investment Company Act Rel. Nos. 13862A and 13922A (April 3, 1984 and May 2, 1984). It was intended that Applicant would be spun off to Pioneer Fund's shareholders in 1989, but intervening changes in federal tax laws made the spin-off disadvantageous. The Trustees of Pioneer Fund, Inc. decided not to spin off the Applicant and the staff of the

Division of Investment Management issued a "no-action letter" dated May 15, 1989 with respect to that decision. Applicant states that it was liquidated into its parent company, Pioneer Fund, Inc. on June 16, 1989.

3. Applicant has no shareholders, assets or liabilities. Applicant is not a party to any litigation or administrative proceeding. Applicant is not engaged nor does it propose to engage in any business activities other than those necessary to wind up its affairs.

For the Commission, by the Division of Investment Management, under delegated authority.

Jonathan G. Katz,  
Secretary.

[FR Doc. 89-27442 Filed 11-21-89; 8:45 am]

BILLING CODE 8010-01-M

#### **SMALL BUSINESS ADMINISTRATION**

##### **Region IV Advisory Council; Public Meeting**

The U.S. Small Business Administration Region IV Advisory Council, located in the geographical area of Birmingham, will hold a public meeting from 9:30 a.m. to 1 p.m. on Friday, December 8, 1989, in the Conference Room of the Birmingham District Office, 2121 8th Avenue, North, Suite 200, Birmingham, Alabama, to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration, or others present.

For further information, write or call James C. Barksdale, District Director, U.S. Small Business Administration, 2121 8th Avenue, North, Suite 200, Birmingham, Alabama 35205-2398, phone (205) 731-1341.

Dated: November 15, 1989.

Jean M. Nowak,

Director, Office of Advisory Councils.

[FR Doc. 89-27393 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

##### **Region VI Advisory Council; Public Meeting**

The U.S. Small Business Administration Region VI Advisory Council, located in the geographical area of New Orleans, will hold a public meeting at 10 a.m. on Friday, December 8, 1989, at the Small Business Administration office, 1661 Canal Street, Suite 2000, New Orleans, Louisiana, to discuss such matters as may be presented by members, staff of the U.S.



Small Business Administration or others present.

For further information, write or call Abby H. Carter, District Director, U.S. Small Business Administration, 1661 Canal Street, Suite 2000, New Orleans, Louisiana 70112-2890, phone (504) 589-2744.

Dated: November 15, 1989.

Jean M. Nowak,

Director, Office of Advisory Councils.

[FR Doc. 89-27394 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

### Region VI Advisory Council; Public Meeting

The U.S. Small Business Administration Region VI Advisory Council, located in the geographical area of Dallas, will hold a public meeting at 9 a.m. on Friday, December 8, 1989, at the Business Resource Center, 4601 North 19th Street, Waco, Texas, to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration or others present.

For further information, write or call James S. Reed, District Director, U.S. Small Business Administration, 1100 Commerce Street, Room 3C36, Dallas, Texas 75242, phone (214) 767-0605.

Dated: November 15, 1989.

Jean M. Nowak,

Director, Office of Advisory Councils.

[FR Doc. 89-27395 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

### Region I Advisory Council; Public Meeting

The U.S. Small Business Administration Region I Advisory Council, located in the geographical area of Montpelier, will hold a public meeting at 10:30 a.m. on Thursday, December 7, 1989, at the Inn at Essex, Essex Junction, Vermont, to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration, or others present.

For further information, write or call Ora H. Paul, District Director, U.S. Small Business Administration, Federal Building, 87 State Street, P.O. Box 605, Montpelier, Vermont 05602, phone (802) 828-4422.

Dated: November 15, 1989.

Jean M. Nowak,

Director, Office of Advisory Councils.

[FR Doc. 89-27396 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

### U.S. SMALL BUSINESS ADMINISTRATION

#### Region VI Advisory Council; Public Meeting

The U.S. Small Business Administration Region VI Advisory Council, located in the geographical area of Corpus Christi, will hold a public meeting at 1 p.m. on Tuesday, December 19, 1989, at the Government Plaza, 400 Mann Street, Suite 403, Fourth Floor, Corpus Christi, Texas, to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration or others present.

For further information, write or call David Royal, Business Development Specialist, U.S. Small Business Administration, Government Plaza, 400 Mann Street, Suite 403, Corpus Christi, Texas 78401, phone (512) 888-3333.

Dated: November 15, 1989.

Jean M. Nowak,

Director, Office of Advisory Councils.

[FR Doc. 89-27397 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

### SMALL BUSINESS ADMINISTRATION

#### Region VI Advisory Council; Public Meeting

The U.S. Small Business Administration Region VI Advisory Council, located in the geographical area of Lower Rio Grande Valley, will hold a public meeting at 9 a.m. on Wednesday, December 13, 1989, at the Small Business Administration Conference Room, NCNB Texas Bank Building, 222 E. Van Buren, Suite 500, Harlingen, Texas, to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration or others present.

For further information, write or call Miguel A. Cavazos, District Director, U.S. Small Business Administration, 222 E. Van Buren, Suite 500, Harlingen, Texas 78550, phone (512) 427-8625.

Dated: November 15, 1989.

Jean M. Nowak,

Director, Office of Advisory Councils.

[FR Doc. 89-27398 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

### Michigan Tech Capital Corp.; License Revocation

[License No. 05/05-0169]

Notice is hereby given that Michigan Tech Capital Corporation (MTCC), 601 Sharon Avenue, Houghton, Michigan

49931, has had its license revoked and no longer operates as a small business investment company under the Small Business Investment Act of 1958, as amended (the Act). MTCC was licensed by the Small Business Administration on August 20, 1982.

Under the authority vested by the Act and pursuant to the regulations promulgated thereunder, the revocation was effective November 2, 1989 and accordingly, all rights, privileges and franchises derived therefrom have been terminated.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies)

Dated: November 16, 1989.

Robert G. Lineberry,

Deputy Associate Administrator for Investment.

[FR Doc. 89-27399 Filed 11-21-89; 8:45 am]

BILLING CODE 8025-01-M

### DEPARTMENT OF TRANSPORTATION

#### Coast Guard

[CGD 89-072]

#### National Offshore Safety Advisory Committee; Subcommittee Meeting

AGENCY: Coast Guard, DOT.

ACTION: Notice of subcommittee meeting.

**SUMMARY:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 2), notice is hereby given of a meeting of the National Offshore Safety Advisory Committee (NOSAC) Subcommittee on Subchapter W (Lifesaving Equipment for Large Inspected Vessels, including MODUs and OSVs). The meeting will be held on December 4, 1989 in room 2317, 1010 Common St., New Orleans, Louisiana. The meeting is scheduled to begin at 9:00 a.m. The Subcommittee plans to discuss the subchapter W Notice of Proposed Rulemaking published on April 21, 1989 (CGD 84-069, 54 FR 16198). The Coast Guard will actively participate by explaining the proposal and answering questions. Comments for the record on the rulemaking will not be received at this meeting.

Attendance is open to the public. The meeting will be informal, and at the discretion of the Chairman, members of the public may participate in the meeting.

#### FOR FURTHER INFORMATION/CONTACT:

Mr. Robert Markle, Chief, Survival Systems Branch, U.S. Coast Guard (G-MVI-3), 2100 Second St., SW.,



Washington, DC 20593-0001. Telephone: (202) 267-1444. Facsimile (24-hour automatic operation): (202) 267-1069.

Dated: November 15, 1989.

M.J. Schiro,

*Captain, U.S. Coast Guard, Acting Chief, Office of Marine Safety, Security and Environmental Protection.*

[FR Doc. 89-27388 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-14-M

[CGD1 89-136]

### New York Harbor Traffic Management Advisory Committee; Meeting

**AGENCY:** Coast Guard, DOT.

**ACTION:** Notice of meeting.

**SUMMARY:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 USC App. I), notice is hereby given of a meeting of the New York Harbor Traffic Management Advisory Committee to be held on December 13, 1989, in the Conference Room, second floor, U.S. Coast Guard Marine Inspection Office, Battery Park, New York, New York, beginning at 10 a.m.

The agenda for this meeting of the New York Harbor Traffic Management Advisory Committee is as follows:

1. Introductions.
2. Update of Navy Homeport Project, Restricted Area in Anchorage Grounds 23-A and 23-B.
3. New Jersey State Police Marine Unit presentation.
4. Update Newark Bay dredging status.
5. Update Kill Van Kull Dredging Project.
6. Topics from the floor.
7. Review of agenda topics and selection of date for next meeting.

The New York Harbor Traffic Management Advisory Committee has been established by Commander, First Coast Guard District to provide information, consultation, and advice with regard to port development, maritime trade, port traffic, and other maritime interests in the harbor. Members of the Committee serve voluntarily without compensation from the Federal Government.

Attendance is open to the interested public. With advance notice to the Chairperson, members of the public may make oral statements at the meeting. Persons wishing to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Committee at any time.

**FOR FURTHER INFORMATION CONTACT:** Lieutenant Commander L. Brooks, USCG, Executive Secretary, NY Harbor

Traffic Management Advisory Committee, Port Safety Office, Building 109, Governors Island, New York, NY 10004; or by calling (212) 668-7834.

Dated: November 13, 1989.

R.I. Rybacki,

*Rear Admiral, U.S. Coast Guard Commander, First Coast Guard District.*

[FR Doc. 89-27429 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-14-M

### Federal Highway Administration

#### Environmental Impact Statement: Calhou and Union Counties, Arkansas

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice of intent.

**SUMMARY:** The FHWA is issuing this notice to advise the public that an environmental impact statement will not be prepared for the replacement of a bridge over the Ouachita River in Calhoun and Union Counties, Arkansas.

#### FOR FURTHER INFORMATION CONTACT:

R.G. Fairbrother, Division Administrator, Federal Highway Administration, 3128 Federal Office Building, Little Rock, Arkansas 72201.

**SUPPLEMENTARY INFORMATION:** On March 17, 1989 the FHWA issued a notice of intent to prepare an environmental impact statement (EIS) on a proposal to replace an existing historic bridge structure over the Ouachita River on U.S. Highway 167 in Calhoun and Union Counties, Arkansas.

The decision to prepare an EIS was based upon the anticipation of a single significant impact—the removal of a historic bridge. Subsequent coordination with the State Historic Preservation Officer and the Advisory Council on Historic Preservation resulted in a determination that removal of the bridge is not a significant impact and therefore the preparation of an Environmental Assessment and subsequent Finding of No Significant Impact is the appropriate avenue for processing this proposed project.

The U.S. Coast Guard, U.S. Army Corps of Engineers and U.S. Environmental Protection Agency are cooperating agencies for this project. No significant environmental impacts have been identified so the notice of intent to prepare an EIS is rescinded.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Issued on November 13, 1989.

Ed Lydick,

*District Engineer, Federal Highway Administration.*

[FR Doc. 89-27427 Filed 11-21-89 8:45 am]

BILLING CODE 4910-22-M

### DEPARTMENT OF THE TREASURY

[Number: 101-05]

#### Reporting Relationships and Supervision of Officials, Offices and Bureaus, Delegation of Certain Authority, and Order of Succession in the Department of the Treasury

Dated: October 27, 1989.

By virtue of the authority vested in me as Secretary of the Treasury, including the authority vested in me by 31 U.S.C. 321(b), it is ordered that:

1. The Deputy Secretary shall report directly to the Secretary.
2. The Assistant Secretary (Policy Management) and Counselor to the Secretary shall report directly to the Secretary, except that with respect to supervision of the Executive Secretariat the Assistant Secretary (Policy Management) and Counselor to the Secretary shall report through the Deputy Secretary to the Secretary.
3. The following officials shall report through the Deputy Secretary to the Secretary and shall exercise supervision over those officers and organizational entities set forth on the attached organizational chart:

Under Secretary (International Affairs)  
Under Secretary (Finance)  
General Counsel  
Assistant Secretary (Enforcement)  
Assistant Secretary (Legislative Affairs)  
Assistant Secretary (Management)  
Assistant Secretary (Public Affairs and Public Liaison)  
Assistant Secretary (Tax Policy)  
Inspector General  
Treasurer of the United States  
Comptroller of the Currency  
Commissioner of Internal Revenue  
Director, Office of Thrift Supervision

4. The Tax Legislative Counsel and International Tax Counsel provide counsel directly to the Assistant Secretary (Tax Policy), but are supervised by the General Counsel as part of the Department's Legal Division.

5. The Deputy Secretary is authorized, in that official's own capacity and at official's own title, to perform any functions the Secretary is authorized to perform and shall be responsible for referring to the Secretary any matter on which action would appropriately be taken by the Secretary.



6. The Under Secretaries, the General Counsel, and the Assistant Secretaries are authorized to perform any functions the Secretary is authorized to perform. Each of these officials will ordinarily perform under this authority only functions which arise out of, relate to, or concern the activities or functions of, or the laws administered by or relating to, the bureaus, offices, or other organizational units over which the incumbent has supervision. Each of these officials shall perform under this authority in their own capacity and their own title and shall be responsible for referring to the Secretary any matter on which action would appropriately be taken by the Secretary. Any action heretofore taken by the Deputy Secretary or any of these officials in the

incumbent's own title is hereby affirmed and ratified as the action of the Secretary.

7. The following officials shall, in the order of succession indicated, act as Secretary of the Treasury in case of the death, resignation, absence or sickness of the Secretary and other officers succeeding the incumbent, until a successor is appointed, or until the absence or sickness shall cease:

- a. Deputy Secretary;
- b. Under Secretary (International Affairs);
- c. Under Secretary (Finance);
- d. Assistant Secretary (Policy Management) and Counselor to the Secretary;
- e. General Counsel; and

f. Assistant Secretaries, appointed by the President with Senate confirmation, in the order designated by the Secretary.

8. Treasury Order 101-05, "Reporting Relationships and Supervision of Officials, Offices and Bureaus, Delegation of Certain Authority, and Order of Succession in the Department of the Treasury," dated July 25, 1989, is superseded as of this date. To the extent that any provision of any other Order of the Department is inconsistent with any provision of this Order, the provisions of this Order shall govern.

Nicholas F. Brady,  
*Secretary of the Treasury.*

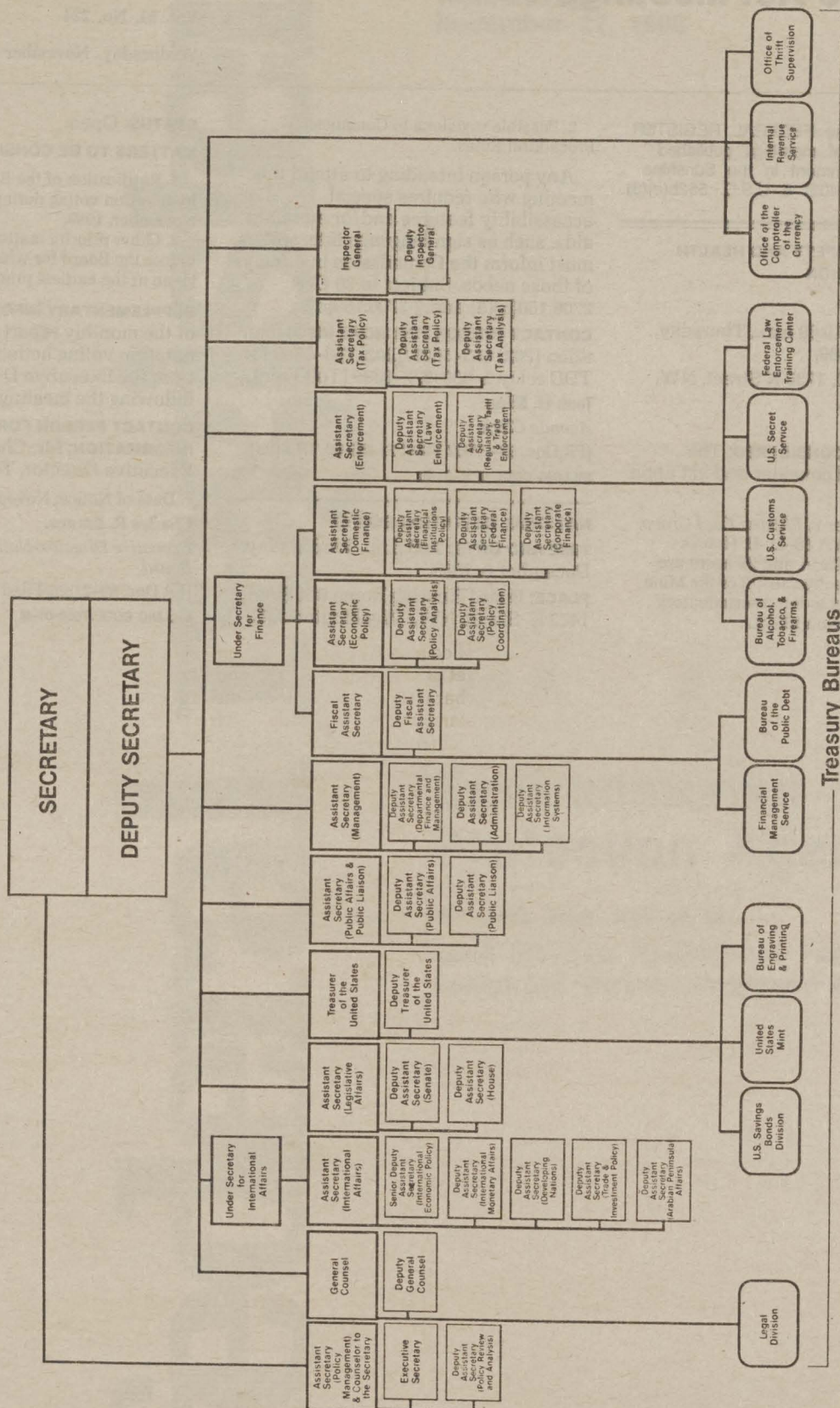
Attachment.

BILLING CODE 4810-25-M



Attachment

**THE DEPARTMENT OF THE TREASURY**



October 27, 1989

[FR Doc. 89-27192 Filed 11-21-89; 8:45 am]  
BILLING CODE 4810-25-C



# Sunshine Act Meetings

Federal Register

Vol. 54, No. 224

Wednesday, November 22, 1989

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

## FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

November 17, 1989.

**TIME AND DATE:** 10:00 a.m., Thursday, November 30, 1989.

**PLACE:** Room 600, 1730 K Street, NW, Washington, DC.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** The Commission will consider and act upon the following.

1. *Dennis Wagner v. Pittston Coal Group, et al.*, Docket No. VA 88-21-D. (Issues include whether MSHA and its agent are "persons" under section 105(c) of the Mine Act and are subject to the discriminatory prohibitions of section 105(c).

2. Possible revisions to Commission Procedural Rules.

Any person intending to attend this meeting who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 20 CFR 2706.150(a)(3) and § 2706.160(d).

**CONTACT PERSON FOR MORE INFO:** Jean Ellen (202) 653-5629/(202) 708-9300 for TDD relay 1-800-877-8339 (Toll Free).

Jean H. Ellen,

*Agenda Clerk.*

[FR Doc. 89-27607 Filed 11-20-89; 1:16 pm]

**BILLING CODE** 6735-01-M

## NATIONAL MEDIATION BOARD

**TIME AND DATE:** 2:00 p.m., Wednesday, December 6, 1989.

**PLACE:** Board Hearing Room 8th Floor, 1425 K Street, NW., Washington, DC.

**STATUS:** Open.

## MATTERS TO BE CONSIDERED:

1. Ratification of the Board actions taken by notation voting during the month of November, 1989.

2. Other priority matters which may come before the Board for which notice will be given at the earliest practicable time.

**SUPPLEMENTARY INFORMATION:** Copies of the monthly report of the Board's notation voting actions will be available from the Executive Director's office following the meeting.

## CONTACT PERSON FOR MORE

**INFORMATION:** Mr. Charles R. Barnes, Executive Director, Tel: (202) 523-5920.

Date of Notice: November 16, 1989.

Charles R. Barnes,

*Executive Director, National Mediation Board.*

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**BILLING CODE** 7550-01-M



**Environmental Protection Agency**

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Wednesday  
November 22, 1989

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**Part II**

**Environmental  
Protection Agency**

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**40 CFR Part 148 et al.**

**Land Disposal Restrictions For Third  
Scheduled Wastes; Proposed Rule**



## ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 148, 261, 264, 265, 268, and 271.

[SWH-FRL-3643-4; EPA/OSW-FR-89-020]

### Land Disposal Restrictions for Third Scheduled Wastes

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** Pursuant to RCRA section 3004(g)(5), EPA is proposing to prohibit the land disposal of certain hazardous wastes listed in 40 CFR 268.12 (the third one-third of the schedule of restricted hazardous wastes, hereafter known as the Third Third). Today's action proposes treatment standards and prohibition effective dates for these wastes, as well as for some of the wastes listed in §§ 268.10 and 268.11 (First Third and Second Third), and for two newly listed wastes. The Agency also is proposing prohibition effective dates for these wastes when they are injected into deep underground wells regulated under 40 CFR 148. If these proposed actions are finalized, Third Third wastes can be land disposed after the applicable effective dates if the respective treatment standards are met, or if disposal occurs in units that satisfy the statutory no migration standard.

The Agency is also proposing certain interpretations of general applicability. The most important of these involve: implementation of the dilution prohibition; whether wastes formerly excluded by the Bevill Amendment are to be considered newly identified or listed for purposes of the land disposal restrictions; applicability of California list prohibitions to Third Third wastes that receive national capacity variances; and applicability of the California list prohibitions to newly identified or listed wastes. EPA is also proposing to clarify the scope of paragraphs (c) and (d) of 40 CFR 261.33 (commercial chemicals that are hazardous wastes when discarded) due to the possible lack of clarity that became apparent in the course of establishing treatment standards for these wastes.

**DATE:** Comments on this proposed rule must be submitted on or before January 8, 1990.

**ADDRESSES:** The public must send an original and two copies of their comments to EPA RCRA Docket (OS-305), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. Place the Docket Number F-89-LD12-FFFFF on your comments. The

EPA RCRA Docket is located in Room 2427, 401 M Street, SW., Washington, DC 20460. The docket is open from 9:00 a.m. to 4:00 p.m., Monday through Friday, except for Federal holidays. The public must make an appointment to review docket materials by calling (202) 475-9327. The public may copy a maximum of 100 pages from any regulatory document at no cost. Additional copies cost \$.20 per page.

#### FOR FURTHER INFORMATION CONTACT:

For general information contact the RCRA Hotline, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; Telephone: 800-424-9346 (toll-free) or 202-382-3000 locally.

For information on specific aspects of this proposed rule, contact Robert Scarberry or Michaelle Wilson, Office of Solid Waste (OS-333), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 382-4770. For specific information on BDAT treatment standards, contact Larry Rosengrant, Office of Solid Waste (OS-322), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 382-7917. For specific information on the Underground Injection Control Program and hazardous waste injection wells, contact Bruce Kobelski, Office of Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 382-7275. For specific information on capacity determinations or national variances, contact Jo-Ann Bassi, Office of Solid Waste (OS-322), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 475-6673.

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## I. Background

*A. Summary of the Hazardous and Solid Waste Amendments of 1984 and the Land Disposal Restrictions Framework*

### 1. Statutory Requirements

The Hazardous and Solid Waste Amendments (HSWA), enacted on November 8, 1984, prohibit the land disposal of hazardous wastes. Specifically, the amendments specify dates when particular groups of hazardous wastes are prohibited from land disposal unless "... it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous" (RCRA sections 3004(d)(1), (e)(1), (g)(5); 42 U.S.C. 6924(d)(1), (e)(1), (g)(5)). Congress established a separate schedule for restricting the disposal by underground injection of solvent and dioxin-containing hazardous wastes, wastes referred to collectively as California list hazardous wastes (RCRA section 3004(f)(2), 42 U.S.C. 6924(f)(2)), and soil and debris resulting from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) sections 104 and 106 response actions, and RCRA corrective actions when the soil and debris contains listed spent solvent, dioxin, and California list hazardous wastes.

The amendments also require the Agency to set "... levels or methods of treatment, if any, which substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized" (RCRA section 3004(m)(1), 42 U.S.C. 6924(m)(1)). Wastes that meet treatment standards established by EPA are not prohibited and may be land disposed. In addition, a hazardous waste that does not meet the treatment standard may be land disposed provided the "no migration" demonstration specified in RCRA sections 3004(d)(1), (e)(1) and (g)(5) is made.

For the purposes of the restrictions, HSWA defines land disposal "... to include, but not be limited to, any placement of such hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed



formation, or underground mine or cave" (RCRA section 3004(k), 42 U.S.C. 6924(k)). HSWA defines land disposal to include underground injection wells; therefore, disposal of hazardous wastes in injection wells is subject to the land disposal restrictions.

The land disposal restrictions are effective when promulgated unless the Administrator grants a national capacity variance from the otherwise-applicable date and establishes a different date (not to exceed two years beyond the statutory deadline) based on "... the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available" (RCRA section 3004(h)(2), 42 U.S.C. 6924(h)(2)). The Administrator may also grant a case-by-case extension of the effective date for up to one year, renewable once for up to one additional year, when an applicant successfully makes certain demonstrations (RCRA section 3004(h)(3), 42 U.S.C. 6924(h)(3)). A case-by-case extension can be granted whether or not a national capacity variance has been granted.

The statute also allows treatment of hazardous wastes in surface impoundments that meet certain minimum technological requirements (or certain exceptions thereto). Treatment in surface impoundments is permissible provided the treatment residues that do not meet the treatment standard(s) (or applicable statutory prohibition levels) are "... removed for subsequent management within one year of the entry of the waste into the surface impoundment" (RCRA section 3005(j)(11)(B), 42 U.S.C. 6925(j)(11)(B)).

In addition to prohibiting the land disposal of hazardous wastes, Congress prohibited storage of any waste which is prohibited from land disposal unless "... such storage is solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal" (RCRA section 3004(j), 42 U.S.C. 6924(j)).

## 2. Applicability to Injected Wastes

As noted above, disposal of hazardous wastes in injection wells is subject to the provisions of HSWA. The injection of hazardous wastes is controlled by two statutes, RCRA and the Safe Drinking Water Act (SDWA). The regulations governing injection of these wastes have been codified along with other regulations of the Underground Injection Control (UIC) program under the SDWA in parts 124, 144, 145, 146, 147, and 148 of the Code of Federal Regulations.

## 3. Solvents and Dioxins

Effective November 8, 1986, HSWA prohibited land disposal (except by deep well injection) of solvent-containing hazardous wastes numbered F001-F005 listed in 40 CFR 261.31 and dioxin-containing hazardous wastes numbered F020-F023 and F026-F028 (RCRA sections 3004 (e)(1), (e)(2), 42 U.S.C. 6924 (e)(1), (e)(2)). On November 7, 1986, EPA promulgated a final rule (51 FR 40572) implementing RCRA section 3004(e). This rule established the general framework for the land disposal restrictions program, and established treatment standards for the F001-F005 solvent wastes and F020-F023 and F026-F028 dioxin-containing wastes.

## 4. California List Wastes

Effective July 8, 1987, the statute prohibited further land disposal (except by deep well injection) of the following listed or identified wastes (RCRA section 3001) set out in RCRA sections 3004 (d)(1) and (d)(2) (42 U.S.C. 6924 (d)(1), (d)(2)):

(A) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l.

(B) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below: (i) arsenic and/or compounds (as As) 500 mg/l; (ii) cadmium and/or compounds (as Cd) 100 mg/l; (iii) chromium (VI) and/or compounds (as Cr VI) 500 mg/l; (iv) lead and/or compounds (as Pb) 500 mg/l; (v) mercury and/or compounds (as Hg) 20 mg/l; (vi) nickel and/or compounds (as Ni) 134 mg/l; (vii) selenium and/or compounds (as Se) 100 mg/l; and (viii) thallium and/or compounds (as Tl) 130 mg/l.

(C) Liquid hazardous waste having a pH less than or equal to two (2.0).

(D) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm.

(E) Hazardous wastes containing halogenated organic compounds (HOCs) in total concentration greater than or equal to 1,000 mg/kg.

On July 8, 1987, EPA promulgated a final rule (52 FR 25760) implementing RCRA section 3004(d). This rule established treatment standards for California list wastes containing PCBs and certain HOCs, and codified the statutory prohibition on liquid corrosive wastes. The statutory prohibition is in

effect for the California list wastes containing free cyanides, metals, and the California list dilute HOC wastewaters.

## 5. Disposal of Solvents, Dioxins and California List Wastes in Injection Wells

Section 3004(f) of RCRA required that the Administrator prohibit the disposal of solvents, dioxins and California List wastes in deep wells, effective August 8, 1988, unless such disposal had been determined to be protective of human health and the environment for as long as the wastes remained hazardous, or unless a variance had been granted under RCRA section 3004(h). On July 26, 1988, the Agency established effective dates for the prohibition on injection of solvents and dioxin wastes (53 FR 28118). In another regulation, effective August 6, 1988 and published August 16, 1988 in the *Federal Register*, the Agency established effective dates for the prohibition on injection of California List wastes (53 FR 30908).

## 6. Scheduled Wastes

HSWA required the Agency to prepare a schedule by November 8, 1986 for restricting the land disposal of all hazardous wastes, including underground injected wastes, listed or identified as of November 8, 1984 in 40 CFR part 261, excluding solvent- and dioxin-containing wastes and California list wastes covered under the schedule set by Congress. The schedule, based on a ranking of the listed wastes that considers their intrinsic hazard and their volume, ensures that prohibitions and treatment standards are promulgated first for high volume hazardous wastes with high intrinsic hazard before standards are set for low volume wastes with low intrinsic hazard. The statute further requires that these determinations be made by the following deadlines: (A) At least one-third of all listed hazardous wastes by August 8, 1988; (B) at least two-thirds of all listed hazardous wastes by June 8, 1989; and (C) all remaining listed hazardous wastes and all hazardous wastes identified as of November 8, 1984, by one or more of the characteristics defined in 40 CFR part 261 by May 8, 1990.

Furthermore, if EPA failed to set a treatment standard by the statutory deadline for any hazardous waste in the first third or second third of the schedule, the waste was required to be disposed in a landfill or surface impoundment that met the minimum technological requirements specified in RCRA section 3004(o) for new facilities (RCRA section 3004(g)(6)). (NOTE: In the



August 17, 1988 First Third final rule, EPA interpreted the term "such facility" in section 3004(g)(6) to refer to the individual surface impoundment or landfill unit.) In addition, prior to disposal, the generator was required to certify to the Administrator that he had investigated the availability of treatment capacity and had determined that disposal in such landfill or surface impoundment was the only practical alternative to treatment currently available to the generator. This restriction on the use of landfills and surface impoundments applied until EPA set a treatment standard for the waste, or until May 8, 1990, whichever was sooner. These requirements are collectively referred to as the soft hammer provisions. Other forms of land disposal, including underground injection, were not similarly restricted, and could continue to be used for disposal of untreated wastes until EPA promulgated a treatment standard, or until May 8, 1990, whichever was sooner.

If the Agency fails to set a treatment standard for any scheduled hazardous waste by May 8, 1990, the soft hammer provisions are superseded by the hard hammer. These wastes are automatically prohibited from all forms of disposal on May 8, 1990, unless the wastes are the subject of a successful "no migration" demonstration (RCRA section 3004(g)(5), 42 U.S.C. 6924(g)(5)). (Note: RCRA section 3004(h)(2) permits extensions of the effective date such as national capacity extensions or case-by-case extensions beyond the hard hammer date.)

On May 28, 1986, EPA promulgated the schedule for setting treatment standards for the listed and identified hazardous wastes (51 FR 19300). All wastes that are identified as hazardous by characteristic are scheduled in the Third Third, as required by RCRA. This schedule is incorporated in 40 CFR 268.10, 268.11 and 268.12.

For the scheduled wastes, the statute does not provide different deadlines for restriction of wastes that are injected underground versus disposed of in surface land units. The Agency did, however, propose and promulgate First Third regulations for surface disposed and injected wastes on separate dates. The First Third final rule, promulgated on August 8, 1988 and published in the *Federal Register* on August 17, 1988 (53 FR 31138), set out the conditions under which wastes included in the first one-third of the schedule of restricted hazardous wastes listed in 40 CFR 268.10 may continue to be land disposed (other than by injection). Final

regulations prohibiting deep well injection of certain First Third wastes were published on August 16, 1988 (53 FR 30908) and on June 14, 1989 (54 FR 25416).

The Second Third final rule, promulgated on June 8, 1989 and published in the *Federal Register* on June 23, 1989, (54 FR 26594) established treatment standards and prohibition effective dates for land disposal and underground injection for certain wastes included in 40 CFR 268.11. In addition, treatment standards and effective dates for certain First Third soft hammer wastes, Third Third wastes and newly listed wastes were promulgated.

Today's notice proposes the conditions under which wastes included in the third one-third of the schedule of restricted hazardous wastes, listed in 40 CFR 268.12, may continue to be land disposed including disposal in underground injection wells. Treatment standards for some restricted hazardous wastes listed in §§ 268.10 and 268.11 (First Third and Second Third wastes) and two newly listed waste (*i.e.*, listed after November 8, 1984) are also proposed.

#### 7. Newly Identified and Listed Wastes

RCRA requires the Agency to make a land disposal prohibition determination for any hazardous waste that is newly identified or listed in 40 CFR part 261 after November 8, 1984 within six months of the date of identification or listing (RCRA section 3004(g)(4), 42 U.S.C. 6924(g)(4)). However, the statute does not provide for an automatic prohibition of the land disposal of such wastes if EPA fails to meet this deadline. Today's notice proposes treatment standards for two newly listed wastes (see section III.A.).

#### B. Regulatory Framework

By way of preface, we note that the following description of existing rules is for the readers' convenience, and is not intended to reopen any of these rules for public comments. The November 7, 1986 final rule (51 FR 40572) established the regulatory framework for implementing the land disposal restrictions program. Some changes to the framework were made in the July 8, 1987, final rule (52 FR 25760) that prohibited the land disposal of California list wastes, as well as in the August 17, 1988 final rule. Some additional changes are also being proposed in today's rule. Regulations specifying how the framework applies to injected wastes were promulgated July 26, 1988 (53 FR 28118). The following discussion summarizes the major provisions of the land disposal restrictions framework.

#### 1. Applicability

The land disposal restrictions apply prospectively to the affected wastes. In other words, hazardous wastes land disposed after the applicable effective dates are subject to the restrictions, but wastes land disposed prior to the effective dates are not required to be removed or exhumed for treatment (51 FR 40577). Similarly, only surface impoundments receiving restricted wastes after the applicable deadline are subject to the restrictions on treatment in surface impoundments contained in 40 CFR 268.4 and RCRA section 3005(j)(11). Also, the storage prohibition applies to wastes placed in storage after the effective dates.

The provisions of the land disposal restrictions apply to wastes produced by generators of greater than 1,000 kilograms of hazardous waste per calendar month, as well as small quantity generators of 100 to 1,000 kilograms of hazardous waste (or greater than 1 kilogram of acute hazardous waste) in a calendar month. However, wastes produced by small quantity generators of less than 100 kilograms of hazardous waste (or less than 1 kilogram of acute hazardous waste) per calendar month are conditionally exempt from RCRA, including the land disposal restrictions (see 40 CFR 268.1).

The land disposal restrictions apply to all facilities subject to RCRA, including both interim status and permitted facilities. The requirements of the land disposal restrictions program supersede 40 CFR 270.4(a), which currently provides that compliance with a RCRA permit constitutes compliance with subtitle C of RCRA. Therefore, even though the requirements may not be specified in the permit conditions, all permitted facilities are subject to the restrictions.

#### 2. Treatment Standards

By each statutory deadline, the Agency must establish the applicable treatment standards under 40 CFR part 268 subpart D for each restricted hazardous waste (RCRA section 3004(m)(1)). After the applicable effective dates, restricted wastes may be land disposed in subtitle C facilities only if they meet the treatment standards. If EPA does not promulgate treatment standards by the statutory deadlines, such wastes are prohibited from land disposal (with the exception of First Third and Second Third scheduled hazardous wastes, which are subject to the soft hammer provisions of



RCRA section 3004(g)(6) until May 8, 1990).

A treatment standard is based on the performance of the best demonstrated available technology (BDAT) to treat the waste (51 FR 40578). EPA may establish treatment standards either as specific technologies or as performance standards based on the performance of BDAT technologies. Compliance with performance standards may be monitored by measuring the concentration level of the hazardous constituents (or in some circumstances, indicator pollutants) in the waste, treatment residual, or in the extract of the waste or treatment residual. When treatment standards are set as performance levels, the regulated community may use any technology not otherwise prohibited (such as impermissible dilution) to treat the waste to meet the treatment standard. Treaters thus are not limited to only those technologies considered in determining the treatment standard. However, when treatment standards are expressed as specific technologies, such technologies must be employed.

### 3. National Capacity Variances from the Effective Dates

The Agency has the authority to grant national capacity variances from the statutory effective dates, not to exceed two years, if there is insufficient alternative protective treatment, recovery or disposal capacity for the wastes (RCRA section 3004(h)(2)). To make capacity determinations, EPA compares the nationally available alternative treatment, recovery, or protective disposal capacity at permitted and interim status facilities which will be in operation by the effective date with the quantity of restricted waste generated. If there is a significant shortage of such capacity nationwide, EPA will establish an alternative effective date based on the earliest date such capacity will be available. During the period such a capacity variance is in place, if the waste is disposed in a landfill or surface impoundment, such disposal may be made only in a unit meeting the minimum technological requirements of RCRA section 3004(o) (53 FR 31186 and 40 CFR 268.5(h)(2)). It should be noted, however, that if a waste subject to a national capacity variance is treated to meet the applicable treatment standard, it may be disposed in a Subtitle C landfill or surface impoundment regardless of whether the unit meets minimum technological requirements.

### 4. Case-By-Case Extensions of the Effective Dates

The Agency will consider granting up to a one-year extension (renewable only once) of a prohibition effective date on a case-by-case basis. The requirements outlined in 40 CFR 268.5 must be satisfied, including a demonstration that adequate alternative treatment, recovery, or disposal capacity for the petitioner's waste cannot reasonably be made available by the effective date due to circumstances beyond the applicant's control, and that the petitioner has entered into a binding contractual commitment to construct or otherwise provide such capacity. During the period that such a case-by-case extension is in place, the waste may be land disposed only in a unit meeting the minimum technological requirements of RCRA section 3004(o).

### 5. "No Migration" Exemptions from the Restrictions

EPA has the authority to allow the land disposal of a restricted hazardous waste which does not meet the treatment standard provided that the petitioner demonstrates that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the waste remains hazardous (40 CFR 268.6). If a petition is granted, it can remain in effect for no longer than ten years for disposal in interim status land disposal units, and for no longer than the term of the RCRA permit for disposal in permitted units (40 CFR 268.6(h)).

Section 148.20 of 40 CFR (promulgated on July 26, 1988, see 53 FR 28118) outlines in detail the Agency's plan for implementing the "no migration" provisions of RCRA with respect to injected wastes. Briefly, a petitioner is required, through modeling, to demonstrate that there is no migration of hazardous constituents from the injection zone for as long as the waste remains hazardous. This demonstration can be made in one of two ways: the use of flow and transport models to show that injected fluids will not migrate vertically out of the injection zone for a period of 10,000 years; or, use of geochemical modeling to show that the waste is transformed so it will become nonhazardous at the edge of the injection zone. Also, a showing must be made that the well was in compliance with the substantive area of review, corrective action, and mechanical integrity requirements of part 146.

### 6. Variances from the Treatment Standards

EPA established the variance from the treatment standard to account for those wastes that cannot be treated to meet the applicable treatment standards, even if well-designed and well-operated BDAT treatment systems are used (40 CFR 268.44). This variance is somewhat analogous to the fundamentally different factors variance in the Agency's Clean Water Act effluent limitations guidelines regulation. Among other things, petitions must demonstrate that the waste is significantly different from the wastes evaluated by EPA in establishing the treatment standard, and the waste cannot be treated to the level or by the method specified by the treatment standard, or that such standard or method is inappropriate for the waste (51 FR 40605). This variance procedure can result in the establishment of a new treatability group and corresponding treatment standard that applies to all wastes meeting the criteria of the new waste treatability group. A site-specific variance from the treatment standard may also be granted administratively (without rulemaking), but the variance has no generic applicability to other wastes at other sites (53 FR 31199).

### 7. Exemption for Treatment in Surface Impoundments

Wastes that would otherwise be prohibited from one or more methods of land disposal may be treated in a surface impoundment that meets certain technological requirements (40 CFR 268.4(a)(3)) as long as treatment residuals that do not meet the applicable treatment standard (or statutory prohibition levels where no treatment standards are established) are removed for subsequent management within one year of entry into the impoundment and are not placed into any other surface impoundment. The owner or operator of such an impoundment must certify to the Regional Administrator that the technical requirements have been met and must also submit a copy of the waste analysis plan that has been modified to provide for testing treatment residuals in accordance with section 268.4 requirements.

### 8. Storage of Prohibited Wastes

Storage of prohibited wastes is prohibited except where storage is solely for the purpose of accumulating sufficient quantities of wastes to facilitate proper treatment, recovery, or disposal (40 CFR 268.50). A facility that stores a prohibited waste for more than one year bears the burden of proof that such storage is solely for this purpose.



*Id.* EPA bears the burden of proof if the Agency believes that storage of a restricted waste by a facility for up to one year is not for the purpose of accumulating sufficient quantities to facilitate proper treatment, recovery, or disposal. *Id.*

#### 9. The "Soft Hammer" Provisions

First Third and Second Third wastes for which EPA has not promulgated treatment standards may continue to be disposed in landfill and surface impoundment units until May 8, 1990, or until EPA promulgates treatment standards, whichever is sooner. Such land disposal may occur only if certain demonstrations are made, and provided the landfill or surface impoundment units meet the minimum technology requirements of RCRA section 3004(o) (see 53 FR 31181, August 17, 1988). Other types of land disposal are not similarly restricted. On May 8, 1990, those wastes for which EPA has not established treatment standards are prohibited from land disposal and underground injection (the hard hammer provision). On May 8, 1990, therefore, the soft hammer provisions will no longer be in effect for the First, Second, or Third Third wastes.

#### II. Summary of Today's Proposed Rule

Today's notice describes the Agency's proposed approach to implementing RCRA Section 3004(g) requirements with respect to certain listed and identified (*i.e.*, characteristic) hazardous wastes included in 40 CFR 268.10-268.12. The Agency is required to promulgate regulations establishing conditions under which the Third Third wastes included in § 268.12 may be land disposed by the statutory deadline of May 8, 1990. Today's notice is the fifth rulemaking promulgated by the Agency in response to Congress' 1984 HSWA mandate.

##### A. Applicability of Proposed Treatment Standards

Today the Agency is proposing treatment standards and effective dates for all Third Third wastes (*i.e.*, those wastes included in 40 CFR 268.12) (see section III.A.2). The Agency is also proposing treatment standards and effective dates for all First and Second Third soft hammer wastes (currently subject to the requirements of 40 CFR 268.8), and for two newly listed wastes. The treatment standards being proposed today will apply to wastes that are land disposed (including those that are injected into deep wells).

In previous rulemakings, the Agency amended the schedule so that certain First and Second Third wastewater residues, derived from wastes (*i.e.*,

multi-source leachate), and mixtures of hazardous/radioactive wastes were moved to the Third Third of the schedule (see 53 FR 31214, § 268.12(b), (c), and (d); 54 FR 8264; and 54 FR 26648, § 268.12(b) and (c)). The Agency today is proposing treatment standards for these wastes. In addition, the Agency is proposing treatment standards for two newly listed wastes (*i.e.*, a waste listed after enactment of the Hazardous and Solid Waste Amendments of 1984) that fall into the F002 and F005 waste codes.

In the Second Third rulemaking, the Agency solicited comments, data, and specific suggestions regarding the regulation of lab packs. In today's rule, the Agency is proposing alternative treatment standards expressed as specified technologies for certain lab packs as a separate treatability group.

In the Second Third proposed rule, the Agency also solicited data and comments on the options and approaches that were being considered for establishing BDAT treatment standards for characteristic wastes. In today's rule, the Agency is proposing treatment standards for wastes that exhibit one or more of the characteristics.

##### B. Applicability of Today's Proposed Rule to Class I-H Hazardous Waste Injection Wells Regulated Under 40 CFR 148

The Agency has, on occasion, proposed and promulgated regulations and effective dates for underground injected hazardous wastes covered under RCRA sections 3004 (f) and (g) separately from regulations addressing wastes disposed in surface facilities. EPA is addressing all methods of land disposal of wastes in today's proposal, including injection wells regulated jointly under the Safe Drinking Water Act (SDWA) and RCRA.

##### C. Characteristic Wastes

In today's rule, EPA is proposing treatment standards for those wastes which exhibit one or more of the following characteristics: ignitability, corrosivity, reactivity or EP toxicity (40 CFR 261.21-24). EPA today is proposing methods of treatment for some characteristic wastes, and concentration levels for others. For certain characteristic wastes, EPA is proposing to require treatment below the level at which the waste ceases to exhibit the particular characteristic. A detailed discussion of these issues is provided in section III.C.

##### D. Proposed Treatment Standards for Multi-Source Leachate

On February 27, 1989, the Agency amended the schedule for prohibiting hazardous wastes from land disposal by placing multi-source leachate derived from hazardous waste in the Third Third (see 54 FR 8264). The Agency took this step to study more fully the most appropriate treatment standards for such leachate. The Agency's original approach to multi-source leachate was that the leachate carries the waste codes of all of the listed hazardous wastes from which it is derived and, therefore, is subject to the prohibitions and treatment standards for those wastes. In the event a particular constituent in the leachate is present in more than one prohibited waste, the stricter treatment standard applies (53 FR 31138, August 17, 1988).

Today the Agency is proposing two options for the development of treatment standards for multi-source leachate: (1) Continued application of the treatment standards developed for the underlying wastes from which the leachate is derived; or (2) establishment of one set of wastewater standards and one set of nonwastewater standards which would apply to all multi-source leachate. The Agency is specifically requesting comment on these two options.

A detailed discussion of the proposed options for the development of treatment standards for multi-source leachate is contained in section III.A of today's proposed rule.

##### E. Mixed (Hazardous/Radioactive) Wastes

EPA is proposing to grant a two-year national capacity variance under section 3004(h)(2) for mixed hazardous/radioactive wastes subject to today's rulemaking. The Agency bases the proposed national variance for these wastes upon a determination that there is inadequate treatment capacity available for these wastes. The Agency is continuing to evaluate the volumes, characteristics, and treatment options for such wastes. A detailed discussion of EPA's approach for mixed wastes subject to today's rulemaking is provided in section III.D of today's proposed rule.

##### F. Applicability of Today's Proposed Rule to Mineral Processing Wastes

Section 3001(b)(3)(A)(ii) of RCRA excludes from the hazardous waste regulations (pending completion of studies by the Agency) solid wastes from the extraction, beneficiation and processing of ores and minerals. On



September 1, 1989, EPA published a final rule in the *Federal Register* (54 FR 36592) that narrowed the scope of this temporary exclusion as it applies to mineral processing operations to 25 enumerated wastes that meet the exclusion criteria of "high volume/low hazard," as specified in the September 1 rule. EPA determined that five specific mineral processing wastes clearly remain within the scope of the exclusion, and that 20 additional specified mineral processing wastes remain within the exclusion pending collection of further volume and hazard data. All previously excluded mineral processing wastes, other than these 25 specified wastes, that exhibit one or more of the characteristics of hazardous waste will no longer be excluded from the hazardous waste regulations when the final rule becomes effective. (On September 25, 1989 (see 54 FR 39298-39318), EPA proposed to remove an additional 7 of these wastes from the exclusion based on additional volume and/or hazard data.)

EPA believes that the wastes withdrawn from the exclusion are "newly identified" for the purposes of these provisions. Although technically the wastes are not being identified by a new characteristic, they are being brought into the subtitle C system after the date of enactment of the HSWA on November 8, 1984. The Agency is proposing that these newly identified mineral processing wastes not be subject to the BDAT treatment standards proposed today for characteristic hazardous wastes. A detailed discussion is provided in section III.E.

#### G. Proposed Alternative Treatment Standards for Lab Packs

The Agency received many comments concerning the applicability of the land disposal restrictions to lab packs in response to previous rulemakings. The Agency maintains that these wastes cannot be exempt from the statutory requirements, since the plain language of the statute includes them, and there is no indication in the legislative history to exclude them from the land disposal restrictions if they contain prohibited wastes. In the Second Third final rule, however, the Agency solicited further comment, data, and specific suggestions to support treatment options for lab packs and modifications to the notification and certification requirements.

The Agency is today proposing alternative treatment standards for lab packs that contain certain organic constituents, and is specifying incineration as the treatment standard

for these wastes. The Agency is also proposing stabilization as an alternative treatment standard for lab packs that contain certain inorganic constituents. The Agency believes that the proposed approach provides some of the administrative relief sought by the commenters, and minimizes the risks posed by land disposal of these small volumes of hazardous waste. Section III.A of today's proposed rule provides a detailed discussion of the alternate requirements for lab packs.

#### H. Nationwide Variances From the Effective Date

Due to lack of sufficient treatment or recovery capacity, EPA is proposing a national capacity variance for soil and debris contaminated with some of the waste codes covered by today's notice. EPA also is proposing a two-year national capacity variance for certain wastes disposed by deep well underground injection.

Such determinations are based on a comparison of the volumes of wastes requiring treatment to the amount of capacity available for such treatment (see section III.B). Although EPA does not require that BDAT technologies be used to meet the applicable treatment standards, unless otherwise specified, EPA assesses available capacity by evaluating the availability of technologies identified as BDAT.

The Agency is proposing to grant a two-year national capacity variance for the surface-disposed and deep well-injected hazardous wastes, and mixed hazardous/radioactive wastes listed in the following tables:

TABLE 1.—SUMMARY OF PROPOSED 2-YEAR NATIONAL CAPACITY VARIANCE FOR SURFACE-DISPOSED WASTES

Required alternative treatment technology	Waste code	Physical form
Combustion of sludge/solids.	<sup>1</sup> D001 .....	Nonwastewater.
	<sup>2</sup> Leachate..	Nonwastewater.
Incineration followed by Mercury retorting.	<sup>3</sup> D009 .....	Nonwastewater.
	P065.....	Nonwastewater.
Mercury retorting.....	P092.....	Nonwastewater.
	<sup>4</sup> D009 .....	Nonwastewater.
	K071 .....	Nonwastewater.
	K106 .....	Nonwastewater.
	U151 .....	Nonwastewater.
Thermal recovery.....	<sup>5</sup> D006 .....	Nonwastewater.
	P015.....	Nonwastewater.
	P073.....	Nonwastewater.
	P087.....	Nonwastewater.
Vitrification .....	D004 .....	Nonwastewater.

TABLE 1.—SUMMARY OF PROPOSED 2-YEAR NATIONAL CAPACITY VARIANCE FOR SURFACE-DISPOSED WASTES—Continued

Required alternative treatment technology	Waste code	Physical form
Wet-air oxidation.....	D010 .....	Nonwastewater.
	K031 .....	Nonwastewater.
	K084 .....	Nonwastewater.
	K101 .....	Nonwastewater.
	K102 .....	Nonwastewater.
	P010.....	Nonwastewater.
	P011.....	Nonwastewater.
	P012.....	Nonwastewater.
	P036.....	Nonwastewater.
	P038.....	Nonwastewater.
	P103.....	Nonwastewater.
	P114.....	Nonwastewater.
	U136.....	Nonwastewater.
	U204.....	Nonwastewater.
	U205.....	Nonwastewater.
	F019.....	Nonwastewater.

- <sup>1</sup> D001 (Ignitables).  
<sup>2</sup> Multi-source Leachate.  
<sup>3</sup> D009 (Organo-Mercury).  
<sup>4</sup> D009 Inorganic Mercury).  
<sup>5</sup> D006 (Cadmium batteries).

TABLE 2.—SUMMARY OF PROPOSED TWO-YEAR NATIONAL CAPACITY VARIANCE FOR UNDERGROUND INJECTED WASTES

Required alternative treatment technology	Waste code	Physical form
Alkaline chlorination.	<sup>6</sup> D003 .....	Wastewater.
Chemical oxidation followed by chemical precipitation.	<sup>7</sup> D003 .....	Wastewater.
Chromium reduction followed by chemical precipitation.	D007 .....	Wastewater.
Mercury retorting.....	D009 .....	Nonwastewater.
Neutralization.....	D002 .....	Wastewater.
Treatment of reactives followed by chromium reduction & chemical precipitation.	<sup>8</sup> D003 .....	Wastewater.
Wet-air oxidation.....	K011 .....	Wastewater.
	K013 .....	Wastewater.
	K014 .....	Wastewater.
Wet-air oxidation followed by carbon adsorption.	Leachates <sup>9</sup> .	Wastewater.

- <sup>6</sup> D003 (Cyanides).  
<sup>7</sup> D003 (Sulfides).  
<sup>8</sup> D003 (Explosives, Reactives).  
<sup>9</sup> Multi-Source Leachate.

#### I. Best Demonstrated Available Technologies (BDAT)

Today's proposed rule defines waste treatability groups by waste code, and identifies the Best Demonstrated



Available Technology (BDAT) for each waste code within the treatability group (see section III.A.1). Treatment standards are based on the performance levels achievable by the BDAT identified for each waste code. Any technology not otherwise prohibited (e.g., impermissible dilution) may be used to meet the concentration-based treatment standards. Where treatment standards are expressed as a technology, the waste must be treated using the specified technology prior to land disposal.

#### *J. Determining When Dilution is Permissible*

EPA believes that its existing rules regarding impermissible dilution of prohibited wastes require further clarification when applied to situations involving aggregation for centralized treatment of more than one waste. Therefore, the Agency is today amplifying its interpretation of permissible dilution to clarify that, with respect to prohibited wastes containing BDAT constituents at concentrations exceeding the treatment standard, aggregation for centralized treatment of such wastes must result in actual reduction in the toxicity or mobility of at least one BDAT constituent in each prohibited waste that is centrally treated. In many cases, such a reduction must occur for more than one BDAT constituent. In addition, given the site-specific nature of the determination, EPA retains its authority to deviate from this general principle in individual cases where centralized treatment is inadequate. A detailed discussion of this clarification is provided in section III.G of today's proposed rule.

#### *K. Other Impermissible Dilution Issues*

EPA today is proposing that: (1) Impermissible dilution of a waste that exhibits the characteristic of toxicity be prohibited; (2) impermissible dilution of listed wastes to achieve a delisting level be prohibited; and (3) impermissible dilution of a waste that exhibits the characteristic of ignitability, corrosivity, or reactivity be prohibited if EPA has established a method of treatment as the treatment standard for the waste. The Agency believes that these types of dilution are incompatible with the language, goals, and legislative history of HSWA, where Congress expressed clear intent that dilution not be used as a substitute for treatment standards promulgated pursuant to RCRA section 3004(m). A detailed discussion of these proposed prohibitions on dilution is provided in section III.H of today's proposed rule.

#### *L. Storage Prohibition*

Section 3004(j) provides that storage of prohibited hazardous waste is itself prohibited "... unless such storage is solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal." See § 268.50(a)(2), and 51 FR 1709, January 14, 1986. This language applies only to storage of prohibited wastes in non-land based storage units (e.g., tanks and containers), land-based storage being a type of disposal. The Agency is today soliciting comment on its interpretation that the storage prohibition does not apply where storage precedes legitimate, protective treatment, recovery or disposal. A detailed discussion of this interpretation is provided in section III.I of today's proposed rule.

#### *M. Generator Notification Requirements*

The generator notification requirements set forth in 40 CFR 268.7 specify that when the generator has determined, either through testing or his knowledge of the waste, that the waste is restricted and does not meet the applicable treatment standards, the generator must, with each shipment of waste, notify the treatment facility in writing of the appropriate treatment standards. If the generator has determined that the waste he is shipping is restricted, but can be land disposed without further treatment, he must submit to the land disposal facility the same information, as well as a certification stating that the waste meets the applicable treatment standards. In today's rule the Agency is considering changing the interpretation of § 268.7 to allow referencing the treatment standards. In addition, the Agency is proposing to amend § 268.7 to allow a one-time notification and certification for small quantity generator (SQG) shipments subject to tolling agreements. A detailed discussion of these amendments is provided in section III.J of today's notice.

#### *N. Waste Analysis Requirements*

The Agency today is proposing to incorporate the approach to waste analysis promulgated in the First and Second Third final rules (53 FR 31140 and 54 FR 26594). Where BDAT is a destruction or removal technology, a total waste analysis is required because it is most appropriate for measuring such destruction or removal. The legislative history indicates a strong preference for treatment that destroys hazardous constituents (see, e.g., 130 Cong. Rec., S9179, daily ed. July 25, 1984,

statement of Senator Chaffee), and the only reliable way to verify that destruction has occurred is to measure the total waste. Similarly, where BDAT is identified as an immobilization technology such as stabilization, analysis of a TCLP waste extract is required because it is the most appropriate measure of immobilization. In cases where both technologies are identified as BDAT, both types of waste analysis are required.

In order for the initial generator to determine whether his waste meets the applicable treatment standard as generated, he should analyze the waste extract if a treatment standard is in 40 CFR 268.41, or he should analyze the total waste if the treatment standard is found in § 268.43 (see proposed section 268.35). The generator may also make this determination based on his knowledge of the waste (see § 268.7(a)), provided there is a reasonable basis for doing so (for example, the generator uses so little of a key constituent that it could not be found in the waste at levels exceeding a treatment standard). The Agency has discussed this principle in past rulemakings, and is not reopening it for comment here.

#### *O. Modification to the Framework: Waste Analysis Plans and Treatment/Disposal Facility Testing Requirements*

Today, the Agency is soliciting comment on proposed revisions to the treatment and disposal facility testing requirements contained in §§ 264.13(a), 265.13(a), 268.7(b), and 268.7(c). Currently, the comment contained in §§ 264.13(a)(2) and 265.13(a)(2) indicates that the owner/operator of a treatment or disposal facility may rely on the generator of the hazardous waste to supply part or all of the waste analysis information (provided that this information is sufficient for the treatment or disposal facility to meet the regulatory requirements imposed by part 268). This language has been mistakenly construed to preclude requiring the owner or operator of a treatment or disposal facility to conduct a detailed analysis of a representative sample of a waste. The Agency is today seeking comment on the following two approaches that would specify the circumstances under which EPA may require testing:

(1) The generator may supply the waste analysis information only if an EPA-approved waste analysis plan allows the generator to do so. The Agency is clarifying that the owner or operator of the treatment or disposal facility will be required to conduct this testing unless otherwise stated in an



EPA-approved waste analysis plan. The Agency is proposing to amend §§ 268.7(b) and 268.7(c), the waste analysis requirements under the land disposal restrictions, to reflect this change; or

(2) The owner/operator of the treatment or disposal facility is required to test the waste a minimum of once a year. The Regional Administrator may require more frequent testing, through the waste analysis plan, on a site-specific basis.

A detailed discussion of the two approaches is provided in section III.K.

The Agency is also addressing the testing requirements of wastes treated in so-called 90-day tanks (or containers). There is a regulatory gap with respect to treatment of prohibited wastes that is conducted in such tanks or containers regulated under § 262.34. This is because such tanks (or containers) are not subject to a waste analysis plan requirement. Thus, there is presently no regulatory vehicle for determining testing frequency in such circumstances (although the existing testing requirement obviously applies, and continues to apply, to persons conducting treatment of prohibited wastes in section 262.34 tanks and containers).

In order to close this regulatory gap, EPA is proposing today that persons treating prohibited wastes in section 262.34 tanks and containers must prepare a plan justifying the frequency of testing that they choose to adopt. A detailed discussion of the proposed requirements is provided in section III.L of today's proposed rule.

#### *P. Clarification of "P" and "U" Solid Wastes*

The Agency is proposing amendments to the existing language of 40 CFR 261.33 to clarify the regulations pertaining to "P" and "U" hazardous wastes. The first amendment involves § 261.33(c), a provision that lists residues from containers and inner liners of containers that have held commercial chemical products listed in § 261.33 (e). This language is partially in error, and the Agency is proposing to correct it. EPA is also proposing a change to clarify when contaminated soil, water, and spill debris contaminated with 40 CFR 261.33 (e) and (f) materials can be solid wastes. A detailed discussion of the Agency's proposed amendments is provided in section III.F of today's preamble.

#### *Q. Applicability of California List Prohibitions After May 8, 1990*

With the promulgation of the Third Third final rule, almost all of the

California list prohibitions will be superseded by more specific prohibitions and treatment standards.<sup>10</sup> The only continued applicability of the California list appears to be (1) for liquid hazardous wastes that contain over 50 ppm PCBs; (2) for HOC-containing wastes identified as hazardous by a characteristic property that does not involve HOCs, as, for example, an ignitable waste that also contains greater than 1000 ppm HOCs (but not an EP toxic waste that exhibits the characteristic because it contains one of the six chlorinated organic pesticides covered by the EP toxicity characteristic; and (3) for liquid hazardous wastes that exhibit a characteristic and also contain over 134 mg/l of nickel and/or 130 mg/l of thallium. In section III.M of today's proposal, the Agency is soliciting comment on whether the California list prohibitions should be applicable to newly listed or identified wastes and discusses this option at length.

Also, EPA is restating that the California list prohibitions apply to wastes which receive national capacity variances in later rulemakings. This discussion also appears in section III.M of this preamble.

### **III. Detailed Discussion of Today's Proposed Rule**

#### *A. Development and Identification of Treatment Standards*

Today's notice proposes treatment standards for the remaining Third Third scheduled wastes for which treatment standards have not been promulgated. (Land disposal restrictions were promulgated ahead of schedule for 16 wastes originally scheduled in the Third Third: K100 nonwastewaters on August 8, 1988 (53 FR 31174, August 17, 1988), clarified on May 2, 1989 (54 FR 18836); and K005, K007, K023, K093, K094, P013, P021, P099, P109, P121, U069, U087, U088, U102 and U190 wastes on June 8, 1989 (54 FR 26594, June 23, 1989). Details of the development of treatment standards for these wastes can be found in the First Third and Second Third administrative records in the RCRA docket.) Treatment standards are also being proposed for the remaining First Third and Second Third wastes which are currently subject to the "soft hammer" provisions of 40 CFR 268.8.

Development and identification of the proposed treatment standards are presented on a waste code basis in sections III.A.2. through III.A.6. of

today's notice. Section III.A.7. presents the development of proposed treatment standards for wastes identified as multi-source leachate and includes a reference table for the BDAT list constituents that correspond to a good portion of the U and P chemicals. This table is a handy reference to the discussion of the development of standards for these U and P chemicals and includes: an alphabetical list of the chemicals proposed for regulation in multi-source leachate, their corresponding U or P code (if applicable), and a reference to sections III.A.2. through III.A.6. that presents background on the development of treatment standards for the corresponding U or P code.

The bulk of the following discussion and that of section III.A.1. has appeared in previous preambles and is being repeated here as an aid to the reader's understanding, not to reopen these issues for comment. (The final paragraph in this section, relating to whether the standards proposed today are below levels that minimize threats to human health and the environment is a new discussion and is open for comment.)

The first step in the development of treatment standards is to divide the wastes to be regulated into groups based on similar physical and chemical properties. These waste treatability groups take into account differences in the applicability and effectiveness of treatment for those particular wastes. The Agency initially decides how wastes should be grouped by examining whether the wastes are generated by similar industries or from similar processes. This is a valid starting point because the waste characteristics that affect treatment performance are expected to be similar for these wastes even though the wastes themselves are somewhat different.

The next step in the development of treatment standards is to identify the Best Demonstrated Available Technology (BDAT) for each treatability group. A treatment technology is considered to be "demonstrated" primarily based on data from full-scale treatment operations that are currently being used to treat the waste (or a similar waste). Once the "demonstrated" technologies have been identified, the Agency determines whether these technologies may be considered "available". To be "available" the technology itself or the services of the technology must be able to be purchased, and the technology must substantially diminish the toxicity of the waste or reduce the likelihood of migration of the waste's hazardous

<sup>10</sup> See 52 FR 29993 (August 12, 1987) and 52 FR 25773 (July 8, 1987); see also 40 CFR 268.32(h) (HOC prohibition superseded by treatment standard and effective date for a particular HOC).



constituents. EPA notes that it prefers to base BDAT on technologies that further the statutory goals of waste minimization and recycling. In some circumstances EPA may select this type of technology as BDAT over more conventional treatment, provided the disparity in performance of the technologies is not too pronounced, and the technology selected minimizes threats to human health and the environment by substantially diminishing waste toxicity and reducing mobility of toxic constituents.

Treatment data from "demonstrated" "available" technologies are then screened with regard to the design and operation of the equipment, the quality assurance/quality control (QA/QC) analyses of the performance and operating data, and the accuracy and precision of the analytical tests used to assess treatment performance. After this screening, the treatment data are adjusted for each constituent based on the analytical recovery of that constituent from treatment residuals. The Agency has chosen to perform this adjustment in order to account (in part) for analytical interferences associated with the chemical makeup of the treatment residual. Where data for more than one treatment technology exist, the individual performance data for each of the various treatment technologies are then statistically evaluated. The mean concentrations of constituents in the treatment residuals from each technology are compared using an analysis of variance test (referred to as "ANOVA") in order to determine if one technology performed significantly better than the other. (A detailed discussion of the methodology for identification of BDAT and the ANOVA test is provided in the November 7, 1986 final rule (51 FR 40572)). Where data exist for only one technology, the Agency uses best engineering judgement to assess whether that particular technology represents the best applicable technology for that particular waste and whether the data indicate that the treatment system was well-designed and well-operated.

Once BDAT is identified, EPA establishes the treatment standard as maximum constituent-specific concentrations allowed in the waste (or in an extract of the treated waste), as a specific technology (or group of technologies), or as combinations of these. Although the statute provides discretion to establish treatment standards as either levels or methods of treatment, EPA normally attempts to set concentration-based treatment standards whenever possible, because

this allows the use of other technologies or combination of technologies that can achieve the same level of performance (as measured by compliance with these standards). Thus, concentration-based standards provide the regulated community some degree of flexibility in choosing treatment technologies and also allow the investigation and development of new and alternative technologies. In addition, establishing concentration-based standards provides a means of ensuring that the treatment technologies are operated at conditions that the Agency has determined will result in the best demonstrated performance.

(Note: EPA is presently studying its response to the Court's remand order in the land disposal prohibition framework case (*Hazardous Waste Treatment Council v. EPA*, No. 86-1657, D.C. Cir. Sept. 15, 1989). Although the Agency has not formulated its final response, we are finding for purposes of this proposal that, based on present knowledge, none of the treatment standards being proposed appear to be below levels where threats to human health and the environment are minimized. In many cases, the standards being proposed are greater than various standards developed pursuant to less exacting statutory directives. For example, most of the standards for metals are greater than, or in the same order of magnitude, as maximum contaminant levels established pursuant to the Safe Drinking Water Act, which take into account technical feasibility and cost. Other examples include the treatment standards for polyaromatic hydrocarbons in organic and petroleum refining wastes that are orders of magnitude higher than risk-based levels developed for purposes of the Clean Water Act's Water Quality Criteria. For other wastes, the Agency is presently unable to determine with confidence as to when threats would be minimized because of various uncertainties such as the amount of a carcinogen that can pose a risk, behavior of hazardous wastes in a land disposal environment, extrapolation of animal toxicity data to human data. Based on the information the Agency at this time views the technology-based standards proposed today as not being below levels where threats to human health and the environment are minimized.)

#### 1. General Applicability of Treatment Standards and Overview of the Remainder of This Preamble Section

Section III.A.1. of today's preamble discusses certain general issues arising from developing or applying today's proposed treatment standards. In order

to provide a comprehensive general discussion, sections III.A.1.a. through III.A.1.f. restate the Agency's position on certain issues pertinent to the development of today's proposed treatment standards. The Agency is also providing a clarification on how treatment standards compare to Practical Quantitation Limits (PQLs) (see section (III.A.1.e.)), and a clarification on the use of grab and composite samples for purposes of establishing and enforcing treatment standards (see section III.A.1.f.). The Agency is not reopening these issues for public comment, nor is it here presenting a complete discussion of these issues (references to previous *Federal Register* notices and background documents will be provided).

Sections III.A.1.g. and h. provide overviews of general issues and information on the applicability of treatment standards to all characteristic (D001 through D017) wastes and to all U and P wastes, respectively. Section III.A.1.i. presents procedures the public should follow for requesting copies of additional data that the Agency expects to receive during the public comment period, and the reasons that these procedures have been established.

*a. Restrictions on the Use of Technologies Identified as BDAT.* Compliance with a concentration-based treatment standard requires only that the treatment level be achieved; once achieved, the waste may be land disposed in a subtitle C unit. The waste need not be treated by the BDAT technology; in fact, a concentration-based treatment standard provides maximum flexibility in one's choice of treatment technology because any treatment, including recycling or any combination of treatment technologies, unless prohibited (e.g., impermissible dilution) or unless defined as land disposal (e.g., land treatment), can be used to achieve these standards.

Some treatment standards in today's proposed rule, however, are expressed as a technology rather than as a concentration-based standard. EPA typically establishes a treatment method as the standard when the Agency has no means of calculating valid concentration-based standards that can be used for compliance monitoring. In such cases, that particular technology must be used to treat that particular waste (including any mixture that contains the waste). After the waste is treated using the specified method it may be land disposed, unless EPA has specified otherwise in the rule (see for example, the proposed standard for certain mercury containing wastes), or



(in some situations) if the residue exhibits a hazardous waste characteristic and does not meet BDAT for that characteristic.

In cases where EPA has specified the use of a technology (or technologies) a generator or treater can, however, demonstrate that an alternative technology can achieve the equivalent level of performance as that of the specified treatment method (40 CFR 268.42(b)). This demonstration is anticipated to typically be both waste-specific and site-specific and may be based on: (1) The development of a concentration-based standard that utilizes a surrogate or indicator compound that guarantees effective treatment of the hazardous constituents; (2) the development of a new analytical method for quantifying the hazardous constituents (see discussion of analytical complications in establishing concentration-based standards for U and P wastes in section III.A.1.h.(2) of today's preamble); and (3) other demonstrations of equivalence for an alternative method of treatment based on a statistical comparison of technologies, including a comparison of specific design and operating parameters.

As a result, a new treatment standard based on this demonstration, as well as any analytical methodology used in the demonstration, could then be proposed to be applicable to other wastes determined to be in the same treatability group. It should be noted that promulgating standards expressed as specified methods of treatment does not preclude the Agency from establishing concentration-based standards in the future without receiving specific variance requests from industry, if adequate data and information become available through other means.

In situations where wastes subject to concentration-based standards are mixed with wastes subject to treatment standards expressed as a method, the mixture must be treated by the specified method and must also meet the concentration-based treatment standards for any other prohibited waste contained in the matrix (see generally 53 FR 31146-7, August 17, 1988).

*b. Applicability of Treatment Standards to Treatment Residues Identified as "Derived-From" Wastes and to Waste Mixtures.* (1) *"Derived-From" Wastes.* The Agency emphasizes that all residues from treating the original listed F, K, U and/or P wastes are likewise normally considered to be the listed waste by virtue of the "derived-from" rule found in 40 CFR 261.3(c)(2). Consequently, all wastes

generated in the course of treatment are prohibited from land disposal unless they comply with the treatment standard or are otherwise exempted from the prohibition, such as, through a no-migration petition or by a capacity variance.

Treatment operations including those identified as BDAT, typically generate wastewater and nonwastewater residuals that may require further treatment. For example, incineration generates two residues, ash and scrubber waters. In order to comply with the treatment standards, the ash may need to be stabilized in order to immobilize the metal constituents that have concentrated in the ash. In addition, subsequent treatment of the scrubber waters may generate additional inorganic residues that may contain metals that were captured in the scrubber water. Thus, these inorganic residues may also need to be stabilized prior to land disposal, in order to comply with the same treatment standards as the stabilized ash. (Note: The Agency has not tested every possible waste that may result from every subsequent part of the treatment train. However, since the treatment standards proposed today are generally based on treatment of a relatively concentrated form of the waste (i.e., the "original" waste), the Agency believes that residues from subsequent treatment are less difficult to treat.)

The "derived-from" rule does not apply to wastes that are identified as hazardous solely because they exhibit a characteristic of hazardous waste (see 40 CFR 261.3(d)(1)). Once these characteristic wastes are treated in compliance with today's proposed treatment standards (and in accordance with the restrictions on impermissible dilution of prohibited characteristic wastes), any residue (provided that it no longer exhibits the characteristic or a new characteristic) is no longer considered to be a RCRA hazardous waste. This does not necessarily mean, however, that treatment is curbed by the characteristic level. See section III.C. of today's preamble.

The Agency is also investigating "de minimis" levels for certain hazardous constituents in listed wastes below which the waste will no longer be a hazardous waste for purposes of subtitle C regulation. The Agency has yet to propose these "de minimis" levels; thus it has not completed its evaluation of the regulations that would be affected, in particular, the relationship of "de minimis" levels to treatment standards promulgated under the land disposal restrictions.

(2) *Mixtures of Different Hazardous Waste Streams.* Today's proposed treatment standards apply to mixtures of different waste streams. Where a waste mixture has more than one applicable concentration-based treatment standard for a particular constituent, the most stringent standard must be met prior to land disposal (see 40 CFR 268.41(b)). In the event that a waste mixture cannot be treated to meet the most stringent standard, one may petition the Agency for a variance from the treatment standard pursuant to 40 CFR 268.44.

*c. Wastewater Versus Nonwastewater Standards.* In today's proposed rule the treatment standards (both concentration-based and specified methods) are generally presented as applicable to wastewaters or to nonwastewaters. However, for certain wastes or waste treatability subcategories the Agency is not making a distinction between wastewater and nonwastewaters.

As an example, for some treatability subcategories of D001, D002, and D003 wastes, the definition of these wastes in 40 CFR 261.21, 261.22, and 261.23 establishes only a single treatability group (e.g., the characteristic of corrosivity only applies to "aqueous" wastes (i.e., water) and to "liquids" according to §§ 261.22(a) (1) and (2) respectively. In other cases, making such a distinction would be nonsensical (e.g., D001 ignitable compressed gases). Thus, the Agency is generally proposing to apply only one standard to these treatability subcategories for which the distinction between wastewater and nonwastewater cannot be made. (See discussion of proposed standards for each D001, D002, and D003 treatability subcategory in section III.A.4. of today's preamble.) The Agency believes that this is the most reasonable approach for these characteristic wastes because the difference between wastewater and nonwastewater may be difficult (or impossible) to establish, or is unnecessary to make because the same technology can be logically applied to the entire treatability subgroup.

(1) *Definition of Wastewaters and Nonwastewaters.* Generally, the Agency is adopting in this notice the definition of wastewaters that was used to promulgate treatment standards for the First and Second Third final rules. Wastewaters are defined as those wastes (listed wastes, including wastes generated as a result of the "mixture" and "derived-from" rules) that contain less than 1% total organic carbon (TOC) and less than 1% total suspended solids, except for those wastes identified as



F001, F002, F003, F004, and F005 solvent-water mixtures. (See 53 FR 31145 (August 17, 1988) which adopts this definition for most First Third wastes, and 51 FR 40579 (November 7, 1986) for the definition of F001, F002, F003, F004, and F005 solvent-water mixtures.) Those wastes (listed wastes, including wastes that are hazardous as a result of the "mixture" and "derived-from" rules) that do not meet these criteria are defined as nonwastewaters and thus would contain greater than or equal to 1% TOC, or greater than or equal to 1% total suspended solids. (Note, however, the discussion in III.B. of further subcategorization of nonwastewaters for purposes of national capacity variances based on a lack of solids incineration capacity.)

(2) *Impermissible Switching of Applicable Wastewater and Nonwastewater Standards.* It is not permissible to dilute or partially treat a waste in order to switch the applicability of a nonwastewater standard to a wastewater standard, or vice versa (see 52 FR 21012 (June 4, 1987); but see 52 FR 25767 (July 8, 1987) noting special circumstances when California list wastes are involved). The Agency has established this principle because technologies applicable to nonwastewaters are not generally applicable to wastewaters, or require special designs (in the cases of incineration) in order to simultaneously handle wastewaters. Furthermore, treatment residues meeting the definition of nonwastewaters must comply with all applicable nonwastewater treatment standards; likewise, residual wastewaters must comply with all applicable wastewater treatment standards.

The Agency recognizes, however, that certain technologies are specifically designed to separate wastewaters from nonwastewaters. Such technologies may or may not be considered partial treatment under this principle, as discussed in the following paragraphs.

Dewatering technologies such as filtration and centrifugation are typically designed to remove suspended solid materials (TSS) from aqueous wastes. (Note: For the purposes of applying BDAT treatment standards, the Agency does not consider carbon adsorption a dewatering technology even though it may act as a filter for suspended material.) When these technologies are applied to a nonwastewater that contains greater than 1% TSS but less than 1% TOC, the resultant liquid residue will probably meet the definition of a wastewater (i.e., it will probably contain less than 1% TSS and less than

1% TOC). The Agency does not consider this impermissible switching of applicable treatment standards.

When the suspended material is organic and the overall untreated waste contains greater than 1% TOC, these dewatering technologies are also not precluded from use. The resultant residuals (i.e., the removed solids and the liquids) must comply with the applicable wastewater or nonwastewater treatment standards depending on their TOC and TSS content. If the liquid residues from these dewatering technologies meet the definition of wastewaters, the Agency does not consider this impermissible switching of applicable standards.

The importance of the TOC level in determining impermissible switching of applicable wastewater or nonwastewater treatment standard is apparent in the scenario of treatment of a waste containing less than 1% TSS and slightly more than 1% TOC (such as 2 or 3% TOC), and thereby being a nonwastewater by definition. If EPA has established concentration-based treatment standards for the corresponding wastewater form of this waste, it would be permissible to use carbon adsorption to treat this nonwastewater, so long as these concentration-based treatment standards for the wastewaters are ultimately achieved (i.e., if the residual wastewater contains hazardous constituents at levels above the concentration-based wastewater treatment standards, additional treatment with other technologies is necessary prior to land disposal.) However, if EPA has established a wastewater treatment standard expressed as "Carbon Adsorption as a Method of Treatment" for this waste code, the nonwastewater described above must comply with the standard for the nonwastewater form, despite the fact that the TOC content is only slightly greater than 1%. This is not just a mechanical application of the requirement that treatment must be conducted by the specified method, with the treatability group determined at the point of generation. EPA established "Carbon Adsorption as a Method of Treatment" standard for certain wastewaters based on the assumption that wastewaters typically contain TOC levels much less than 1%, so that removal of the organic constituents from these wastewaters was anticipated to be effective. If the nonwastewater previously described is subjected to carbon adsorption as a method of treatment, there would be no means of assuring optimum removal of the

hazardous constituents. Thus, in such a situation, the use of carbon adsorption for this nonwastewater, is not permitted as a means of complying with BDAT. The Agency considers this an impermissible switching of applicable treatability groups and treatment standards.

(3) *Application of Wastewater/Nonwastewater Standards To Residues Generated From Use of a Specified Method.* When EPA specifies a treatment method as the treatment standard, residues resulting from the required treatment method are no longer prohibited from land disposal unless EPA should otherwise specify. Commenters during previous rulemakings suggested that EPA specifically clarify the applicability of the treatment standards expressed as a required method for certain residues generated from the use of the specified methods.

In the Second Third final rule (see generally 54 FR 26625, 26630, June 23, 1989), the Agency presented specific guidelines on this. This summary is repeated here for the reader's convenience. Where EPA has established "Incineration as a Method of Treatment" as a treatment standard for nonwastewaters and/or wastewaters, or where EPA has established "Carbon Adsorption as a Method of Treatment" for wastewaters, the following statements concerning residuals from treatment trains incorporating these technologies are true: (1) Scrubber waters from incinerators in compliance with the substantive provisions of 40 CFR 264 subpart O or 265 subpart O are considered to meet the treatment standard and can be land disposed; (2) the scrubber waters from incinerators in compliance with the substantive provisions of 40 CFR 264 subpart O or part 265 subpart O are not required to undergo "Carbon Adsorption as a Method of Treatment" when this specified wastewater treatment method also has been established; (3) incinerator ashes and residues from the subsequent treatment of scrubber waters from incinerators in compliance with the substantive provisions of 40 CFR 264 subpart O or 265 subpart O are considered to meet the required "Incineration" treatment standard, and can be land disposed; (4) incinerator equipment (such as fire brick) derived from sections of the incinerator that have been directly subjected to the high temperatures of the incinerator that was operated in compliance with the substantive provisions of 40 CFR 264 subpart O or 265 subpart O, or are downstream from the high temperature



zones, are considered to meet the treatment standards for these wastes and can be land disposed; (5) wastewater effluent and any subsequent nonwastewater treatment residues from carbon adsorption units treating wastewater forms of these wastes (i.e., wastes from downstream from the carbon column) are considered to meet the specified treatment standard and can be land disposed; and (6) where EPA specifies carbon adsorption as the treatment method for wastewaters, spent carbon, as well as any other nonwastewater residues from the wastewater treatment preceding carbon adsorption, are *not* considered to meet the treatment standard; such spent carbon and nonwastewater residues must be treated by the specified nonwastewater method prior to land disposal.

*d. Transfer of Treatment Standards.* Rather than testing the performance of BDAT on every waste, for certain wastes the Agency examines similarities in waste stream characteristics and constituents in order to transfer treatment standards from a tested waste to a similar untested waste. EPA believes that transferring treatment performance data for untested wastes is technically valid, particularly when the untested wastes are generated from similar industries or similar processing steps. EPA also believes that transferring treatment performance data for tested constituents in one waste to untested constituents in another similar waste is technically valid, particularly when the constituents and wastes have similar chemical and physical properties.

To determine whether wastes generated by different processes can be treated to the same performance levels, EPA reviews data on waste characteristics to identify parameters that are expected to affect treatment selection. When this analysis suggests that an untested waste can be treated with the same technology as a tested waste, the Agency examines a more comprehensive list of constituents that represent the most important waste characteristics that will affect treatment performance.

The complete methodology for transferring treatment standards, however, depends upon the waste itself and often differs from treatability group to treatability group. For a detailed discussion of the transfer methodology for the wastes presented in today's notice, refer to the background documents for each waste or treatability group and the background documents

for the wastes from which the treatment standards were transferred.

EPA notes further that in the case of transfers of standards based on performance of incineration, EPA is most often transferring standards that were based on the ability of the incinerator to achieve destruction of organics to detection limits as measured in the ash and scrubber water. This is supported by data from approximately fourteen different test burns of a variety of different RCRA hazardous wastes. These wastes contained varying concentrations of many BDAT list organics. While not all of the organics on the BDAT list were present in the untreated wastes, the residues were analyzed for them and thus detection limits were calculated for a variety of incinerator residues. In developing concentration-based treatment standards for U and P wastes, the Agency considered all of these detection limits and determined which were the most representative of U and P wastes. In order to account for the anticipated variability in waste characteristics of untreated U and P wastes, the Agency typically selected the highest detection limits for the constituent that corresponded to the chemical represented by the U or P code. Thus, the Agency believes the resultant treatment standards should be achievable on a routine basis for the majority of U and P wastes.

However, in developing concentration-based treatment standards for specific F and K wastes containing organics, the Agency considered all of these data and determined which particular waste was the most representative of that particular F or K waste (based on the availability of waste characterization data for the untreated F or K waste). As a result, the Agency often transferred treatment standards that were significantly lower than those developed for the U and P wastes. The Agency believes that these lower treatment standards are achievable for these F and K wastes based on the achievability of detection limits in the waste matrix from which the standard was transferred.

*e. Analytical Requirements and Relationship of PQLs to BDAT—(1) Waste Analysis Requirements.* In today's proposed rule, BDAT has been identified as a destruction technology for organic constituents and cyanides in many wastes. For these wastes the best measure of treatment performance is one that reflects the extent to which these organics and cyanides have been destroyed. This approach is likewise consistent with the Congressional

preference to destroy hazardous wastes where possible. See, e.g., 130 Cong. Rec. S 9179 (July 25, 1984) (statement of Sen. Chaffee) (wastes with high organic content should be incinerated). This approach is also consistent with the strong Congressional goal of eliminating uncertainty from land disposal of hazardous waste, see, e.g., RCRA section 3004(d)(1), because it ensures removal of hazardous constituents from the land disposal environment. Therefore, the corresponding treatment standards for these constituents are based on an analysis of total constituent concentrations in a representative sample of the treated waste. [NOTE: The land disposal restrictions for solvent waste codes F001-F005 (51 FR 40572) require analysis of waste extracts obtained from the Toxicity Characteristic Leaching Procedure (TCLP) as a measure of performance. At the time that the treatment standards for F001-F005 were promulgated, useful data were not available on total constituent concentrations in treated residuals and, as a result, the TCLP was considered to be the best available measure of performance.]

In cases where treatment standards for metals in nonwastewaters are based on stabilization, the use of the TCLP is typically required as the measure of the performance of the treatment technology. Where treatment standards for nonwastewaters are based on multiple treatment processes due to mixtures of organics and metals, or where recovery of metals is the basis of the treatment standards, analysis of total constituent concentrations and analysis of the TCLP extract (or EP extract depending upon the standard) must be performed prior to land disposal.

(2) *The BDAT List.* The Agency has established a list of chemicals, primarily derived from the constituents in 40 CFR 261 Appendix VII and Appendix VIII, that are evaluated for regulation as BDAT constituents (i.e., concentration-based treatment standards) when they are present in a listed waste. The rationale for selection of the particular constituents to be regulated can be found in the background document for each waste or waste treatability group. The Agency believes that it is not limited to regulating only those constituents for which a waste is listed (40 CFR 261 Appendix VII). Appendix VII sets forth only the constituents that were the basis for the listing and is not an exhaustive list of hazardous constituents in each waste. Additional support for taking this approach is found in RCRA section 3001(f), which specifies



that EPA must consider additional hazardous constituents other than those for which the waste was listed when evaluating delisting petitions. Section 3001(f) thus acknowledges that Appendix VII is only a partial list of the hazardous constituents that can be present in a listed waste.

(3) *Relationship of Treatment Standards to PQLs.* The regulated community has asked a number of questions about the relationship of treatment standards to the practical quantitation limits (PQLs) for a number of constituents. It is important, therefore, to clarify the definition of PQLs, their intended use, and their relationship to treatment standards.

In proposed revisions to the September 1986 edition of Test Methods for Evaluating Solid Wastes (also known as and herein referred to as SW-846), the Agency defines PQLs as " \* \* \* the lowest level of quantitation that the Agency believes a competent laboratory can be expected to reliably achieve." The intended use of PQLs is mentioned in Method 8250 of SW-846 (the analytical method for the determination of semivolatile organics in wastes by gas chromatography/mass spectrometry). This discussion states: "Sample PQLs are highly matrix-dependent. The PQLs listed herein are provided for guidance and may not always be achievable" (SW-846, September, 1986, Table 2, p. 8250-5). The discussion further defines PQLs as the method detection limit in reagent water (from Table 1, pp. 8250-2, 8250-3, and 8250-4) multiplied by a matrix dependent factor that was estimated for four matrices (Table 2, p. 8250-5).

As is evident from the above citations, the PQLs are directly related to the amount of interferences that are present in the different waste matrices, and the PQLs listed in SW-846 are not always achievable for constituents as measured in untreated wastes. However, the Agency points out that most treatment processes, particularly destructive technologies such as incineration, destroy not only the hazardous constituents of the waste but also other organics that typically interfere with the analysis for constituents in untreated wastes as well. Thus, PQLs typically are significantly lower for treatment residuals such as incinerator ash than for untreated wastes. Such differences in PQLs for untreated versus treated wastes are demonstrated by the data for almost every incineration test burn performed by the Agency in developing BDAT treatment standards (see appropriate background documents for each waste treatability group).

Potential users of PQLs should keep in mind that the PQLs in SW-846 were established to provide guidance for the analysis of waste samples by acting as minimum performance criteria for analytical laboratories. The PQLs do not necessarily represent the lowest limits of analytical performance achievable for any given waste.

The PQLs in SW-846 were intended to be broadly applied to groups of wastes. As a result, matrix dependent correction factors were not developed for any particular waste code, and do not specifically apply to any particular treatment residuals (i.e., only correction factors for matrices identified as ground water, low-level soil, high-level soil, and non-water miscible waste were specified in Method 8250 of SW-846). Furthermore, the Agency is currently modifying and expanding the matrix correction factors, as well as modifying the detection limits from which the PQLs are derived.

The PQLs listed in SW-846 for some constituents are less stringent than some of the treatment standards. This apparent anomaly results primarily from the fact that the PQLs in SW-846 were not based on the same waste matrices (i.e., treatment residues) that were tested in developing the treatment standards. The treatment standards for a given waste code are based on analysis of the treatment residuals of the waste (or in some cases, a similar waste from which the treatment standards are transferred). Consequently, the resulting treatment standards appropriately reflect the level of analytical performance achievable for that waste. Thus, the PQLs in SW-846 are generally not used directly in developing the part 268 treatment standards.

The question has been raised whether constraints posed by the limits of applicable analytical methods allow treatment standards to be met reliably on a routine basis. The Agency points out that the laboratories used to develop the treatment standards are reliable and must maintain compliance with EPA's Quality Assurance/Quality Control requirements on a routine basis. The background documents for all wastes for which incineration has been established as BDAT provide additional support that treatment standards are above the limits of detection for regulated constituents on a routine basis. These documents provide data that indicate that the laboratories consistently obtain low detection limits for the regulated constituents in the wastes.

In cases where a facility believes that waste-specific treatment standards

cannot be met because their laboratory is unable to achieve PQLs below the treatment standards on specific treatment residuals, the facility may submit a petition for a variance from the treatment standards for that particular waste code (EPA construes 40 CFR 268.44 as encompassing such petitions). The facility must demonstrate that the analyses are in compliance with all other BDAT QA/QC provisions (as outlined in the BDAT Generic Quality Assurance Project Plan (EPA/530-SW-87-011, March 1987). Moreover, the petitioner must also demonstrate that the treatment process is a well-designed and well-operated BDAT process.

(Note: The Agency may use analytical methods that are not specifically identified in SW-846 for setting treatment standards, provided that the methods comply with all appropriate detection limits, spike/surrogate recoveries, and other quality assurance criteria. Thus, a facility may also develop a petition in a similar manner.)

*f. Treatment Standards Based on Single Facility Data, Grab Samples Versus Composite Samples, and Waste Analysis Plans—(1) Single Facility Data.* As discussed in the August 17, 1988 final rule for First Third wastes, the Agency believes that the use of a small number of data sets from a single treatment facility can be representative of the treatment achieved by the particular treatment system. This is particularly true when no other treatment data are available, or when data exist but there is no verification that the treatment process from which the data were obtained was well-designed or well-operated. It is not possible for the Agency to sample every facility generating the waste or every treatment system treating the waste. For the purposes of determining treatment standards, the Agency has established a methodology for selecting particular facilities and treatment systems that it considers to be well-designed and well-operated. The Agency also selects wastes that are representative of those most difficult to treat.

The Agency recognizes that there is variability inherent in every treatment system, as well as variability in the characteristics of the wastes. The Agency accounts for these by multiplying the mean of the constituent concentrations by a correction factor known as the variability factor. This factor is derived through a quantitative procedure that determines the statistical 99th percentile for the treatment standard. This establishes a treatment standard that should be achievable 99 percent of the time by a well-designed,



well-operated system. The Agency further adjusts the treatment standard to account for variabilities due to analytical recovery. In addition, all analyses of hazardous constituents are performed in accordance with an established QA/QC plan as outlined in the BDAT Generic Quality Assurance Project Plan. The Agency is confident that this methodology will result in treatment standards that accurately represent the performance of a particular treatment system.

Standards based on incineration are always established above the limit of detection rather than at the detection limit. This is because the Agency prefers to account for the variability inherent in the treatment system and in the analysis of the recovery data. Therefore, following EPA's methodology for establishing treatment standards, the data (the average detection limit) are adjusted through use of the variability factor (typically 2.8) and a correction for recovery of a spiked analyte (or surrogate). The resulting treatment standards for the organic constituents are above the detection limits. The standards are thus actually greater than the achievable levels (which are at or below the detection limits) and should be easily met by a well-designed, well-operated incineration system.

(2) *Grab versus Composite Samples.* Where performance data exist based on both the analysis of composite samples and the analysis of grab samples, the Agency establishes the treatment standards based on the analysis of grab samples. Grab samples normally reflect maximum process variability, and thus would reasonably characterize the ranges of treatment system performance.

In cases where only composite data exist, the Agency considers the QA/QC of the data, the inherent efficiency of the process design, and the level of performance achieved. The Agency may then choose to use this composite data to develop the treatment standard. Where these data are used to establish the treatment standard, the treatment standard is identified as based on analysis of a composite sample. Enforcement of that standard thus would also be based on composite samples.

(3) *Waste Analysis Plans.* The waste analysis plan shall provide the basis for monitoring a disposal facility's compliance with promulgated treatment standards. This plan must be adequate to assure compliance with part 268. The disposal facility is, however, ultimately responsible if it disposes a waste that does not meet a treatment standard. Therefore, a disposal facility may violate the land disposal restrictions

while at the same time complying with the provisions of its waste analysis plan. Put another way, a waste analysis plan may be written to authorize types of sampling and monitoring different from those used to develop the treatment standard(s). In such an instance, the disposal facility must demonstrate that the waste analysis plan (and the specific deviating feature) is adequate to assure compliance with part 268 (see 40 CFR 264.13). This might require, for example, a demonstration of statistical equivalence between a composite sampling protocol and one based on grab sampling, or a demonstration of why monitoring for a subset of pollutants would assure compliance of those not monitored.

In any case, enforcement of the land disposal restrictions is based on grab samples (except as described in the previous section) and analysis of all constituents regulated by the applicable treatment standards, not on the facility's waste analysis plan.

*g. General Issues on Developing Treatment Standards for Characteristic Wastes.* This section of today's preamble presents a discussion of general issues on establishing treatment standards for all characteristic wastes. EPA initially took the position that wastes that are hazardous exclusively by virtue of exhibiting a characteristic are not subject to the RCRA section 3004(g)(C) "hard hammer" (See 51 FR 1607 n.4., January 14, 1986). EPA no longer takes this position, and is now reading RCRA section 3004(g)(6)(C) to encompass all wastes for which EPA has an obligation to establish treatment standards for under paragraph (g)(5), which includes identified characteristic wastes. The legislative history also indicates that Congress intended EPA to include identified characteristic wastes (i.e., those identified as of the effective date of HSWA) by the statutory deadline (H.R. Conf. Rep. No. 1133, 98th Cong., 2d Sess. 88 (1984)). In any case, since EPA intends to promulgate treatment standards for these wastes, the issue has no practical significance.

The criteria for identifying a waste as a characteristic hazardous waste are defined in 40 CFR 261.21 through 261.24. These criteria identify five major groups of characteristic wastes: Ignitable (D001), Corrosive (D002), Reactive (D003), EP Toxic Metals (D004-D011), and EP Toxic Pesticides (D012-D017). There are several criteria within each of these major groups that define the particular characteristic. EPA used these individual criteria as the basis for identifying treatability groups (subcategories) within each major characteristic group.

There are a number of options for developing treatment standards for any characteristic waste code or subcategory. One option is to propose concentration-based standards when the Agency has data to support such an action. A second option is to propose a treatment standard expressed as a required method. A third option is to simply establish the characteristic level as the treatment standard. A fourth option is to establish a method of treatment along with a required performance level. (See preamble section III.C. for further discussion of EPA's authority to establish treatment standards for characteristic wastes.)

Section III.A.4. of today's preamble presents the proposed treatment standards for: ignitable (D001), corrosive (D002), and reactive (D003) characteristic wastes; their treatability subcategories; and related U and P reactive wastes. Proposed treatment standards for EP Toxic Metals (D004-D011) are presented in section III.A.5. along with proposed treatment standards for some K, U and P wastes that contain these metals. Proposed treatment standards for EP Toxic Pesticides (D012-D017) are presented in section III.A.2.c. along with treatment standards for related K, U, and P halogenated pesticides.

For many of the wastes that are hazardous only because they exhibit one of the characteristics in 40 CFR 261.3(c)(1) and (d)(1), the use of some BDAT technologies will result in a residue that no longer exhibits any of the characteristics. In some cases, however, the use of a BDAT treatment technology to remove one characteristic will result in a residue which has a different characteristic, and thus requires further treatment (e.g., incineration of an ignitable D001 waste may generate an ash that exhibits the characteristic of EP Toxicity for metals (D004-D011)). Furthermore, if the characteristic waste or its treatment residue is mixed with a listed hazardous waste, the entire mixture is considered to be the listed hazardous waste due to the derived-from rule, even if treated to remove all characteristics.

The Agency is today proposing that characteristic wastes and residues from treatment of characteristic wastes must be treated to meet all characteristic treatment standards prior to land disposal. When the treatment standard for one characteristic is expressed as a required method of treatment, the method must be used and the treatment standard for any additional characteristic in the residue must be met. See preamble section III.A.4.a. for a



further discussion of this concept as it applies to ignitable, reactive, and corrosive characteristic wastes.

For purposes of complying with today's proposed treatment standards, dilution of characteristic wastes in order to remove the characteristic (in lieu of meeting the treatment standard) is not allowed. Dilution does not destroy the chemical constituents causing the characteristic; it is merely a physical process that provides temporary removal of the characteristic which can be reversed if the physical conditions are changed. The Agency understands, however, that dilution is sometimes necessary in order to facilitate treatment (e.g., in order to lower the BTU value of a D001 waste with a very high BTU value). This type of dilution to effect treatment is not prohibited as long as it is not used as treatment or to avoid compliance with treatment standards, or in the case of California list wastes, prohibition levels. (See preamble sections III.C. and III.D. for further discussion of issues relating to dilution.)

*h. General Issues Pertaining to All Remaining U and P Wastes.* Today's proposed rule addresses several issues pertinent to the development of concentration-based treatment standards for U and P wastes as defined in 40 CFR 261.33 (e) and (f). These include issues such as deficiencies in waste characterization, analytical complications, sporadic generation patterns, infrequent land disposal, potential necessity for dissolution prior to treatment, and difficulties in evaluation of recycling potential. EPA is also proposing two clarifying corrections to the existing scope of section 261.33: one change to correct an unintended gap in paragraph (c), and the other to clarify that contaminated soils and other spill residues are not automatically excluded from being solid wastes if recycled.

The Agency believes that concentration-based treatment standards can be developed for many of the U and P wastes based on existing data. EPA has grouped all of the U and P wastes into various treatability groups based on similarities in elemental composition (e.g., carbon, halogens and metals) and the presence of key functional groups (e.g., phenolics, esters, and amines) within the structure of the individual chemical represented by the U or P waste code. The Agency has also accounted for physical and chemical factors that are known to affect the selection of treatment alternatives and to affect the performance of the treatment, such as volatility and solubility, when developing these treatability groups. The use of the

chemical (e.g., pesticides and pharmaceuticals) was also important in establishing these groups. Emphasizing the use of these chemicals allows the Agency to identify issues specific on these groups of chemicals, to target potential sources of data, and to solicit comments and data from specific industries and public interest groups.

*(1) Waste Characterization of U and P Wastes.* EPA has designated a specific U or P waste code number referring to the specific chemical constituent associated with that code. EPA's listing sorts these wastes into two general hazard categories. Those wastes identified as P wastes are defined as "acute hazardous" wastes and those wastes identified as U wastes are defined as "toxic" wastes. The Agency has determined that these distinctions generally have no significant bearing on treatability of the particular chemical or waste, and thus did not consider these distinctions between U and P wastes in developing the treatability groups identified in this section.

The U and P wastes are defined as out-of-date commercial products, chemical intermediates, off-specification (off-spec) products, container liners (or residues), or spill residues. (See 40 CFR 261.33.) These wastes can also exist as wastewater or nonwastewater treatment residues based on the derived-from or mixture rules. In addition, U and P wastes are often contained in lab packs as complex mixtures of discarded concentrated chemicals, contaminated laboratory samples, old analytical laboratory standards, and contaminated equipment.

The composition of these wastes can vary significantly. Some U and P wastes may not contain the same constituents or concentration of the specific U or P chemical that was present in the waste from which concentration-based standards may be proposed to be transferred. However, given the statutory time constraints that exist, the Agency cannot possibly test every single U and P chemical. The Agency believes that the transfer of data and development of concentration-based standards is the best alternative for these U and P wastes, and is therefore proposing such standards whenever possible.

*(2) Analytical Complications.* The Agency has determined that for many U and P wastes, as well as for some K wastes, there are several complications that arise in terms of how reliably the primary hazardous constituents can be quantified. These complications appear to preclude the establishment of

concentration-based treatment standards. As a direct result of these complications, the Agency is compelled to establish a method (or methods) of treatment as a treatment standard rather than concentration-based constituent specific standards.

For any particular U or P chemical, there are four major reasons that these quantification complications exist: (1) there are no methods that are currently verified for the quantification of the constituent of interest in treatment residuals; (2) calibration standards (i.e., standard solutions of known purity for validating compliance with QA/QC procedures) of that chemical are not currently available on the commercial market; (3) the chemical may be unstable in water, or react with water; and (4) the chemical may not be listed as a single chemical entity (e.g., P030 is listed as "soluble cyanide salts, not otherwise specified"). Chemical specific complications are presented in the appropriate section of today's preamble that discusses the specific treatability group where the U or P chemical has been classified. Implications of these complications on the general procedures for establishment of concentration-based standards are outlined in greater detail below.

*(a) Availability of a Verified Analytical Method.* The September, 1986, edition of Test Methods for Evaluating Solid Wastes (also known as SW-846), does not include analytical methods that are currently verified for the quantification of some U and P chemicals in treatment residuals. This does not imply that an existing analytical method cannot be used to quantify that particular chemical, but rather, it indicates that the Agency has not verified the quantification of that U or P chemical in the specific treatment residuals of interest. However, in the absence of this verification and where the Agency has sufficient belief that a particular analytical method can analyze a particular chemical, the Agency is not precluded from establishing a concentration-based treatment standard for that U or P chemical. In fact, the Agency anticipates that for many U and P chemicals, analytical methods will be verified as appropriate for complex matrices such as treatment residuals. EPA is currently working to validate analytical methods for a growing number of chemicals in a variety of matrices. It is anticipated that treatment data obtained during the development of BDAT for specific waste codes will also assist in the validation of these methods.



For many U and P chemicals, the Agency has determined that only High Performance Liquid Chromatography (HPLC) analytical methods can be used to measure their concentration. Although HPLC techniques have been used to quantify certain chemicals in relatively clean aqueous matrices, the Agency has not completely verified that HPLC is appropriate for analysis of either untreated wastes or treatment residuals. There is only one HPLC method that is currently listed in SW-846 as applicable to analysis of solid wastes, with very limited applicability. However, the Agency is in the process of validating other HPLC methods, including multiple-column HPLC systems and HPLC units coupled with mass spectroscopy. Until this method validation work is completed, the Agency does not believe that it should establish concentration-based treatment standards for these particular U and P chemicals. Further, the Agency currently lacks data on treatment of hazardous wastes based on HPLC analyses.

The Agency also recognizes the existence of methods other than those specifically identified in SW-846, that can successfully quantify some U and P compounds in complex matrices, and for the purposes of today's proposed rule solicits information about them. In particular, the commenter should supply all available QA/QC information and the data must represent analysis of treated residuals from the use of technologies that are equivalent to that examined or specified in today's preamble as BDAT for that particular chemical. Commenters should specify that the submitted data are applicable to a particular waste code.

*(b) Commercial Availability of Calibration Standards.* Solutions of known purity and concentration of a chemical or mix of chemicals are often referred to as calibration standards. These are used by analytical laboratories to verify the accuracy and precision (QA/QC) of a particular analysis for a particular chemical or group of chemicals. The continued availability of these standards from commercial chemical suppliers is important in maintaining proper QA/QC of quantitative analysis for the chemical constituents in treatment residuals. For the purposes of routine compliance with treatment standards, the Agency believes that an analytical laboratory must be able to readily and consistently purchase these calibration standards.

EPA determined which compounds are commercially available by asking five major suppliers whether they had the chemicals in stock and whether they

were available for shipping to prospective buyers. Only those chemicals thus found to be "commercially available" were included on the list of those for which EPA will set concentration-based standards and require analytical quantification. However, EPA realizes that some analytical reagents may exist for these chemicals, outside the commercial inventories of the major supply houses contacted. Nevertheless, unless a compound is consistently in stock at major suppliers, the Agency believes that the difficulties in obtaining these standards and in verification of their purity are sufficient cause to not establish concentration-based treatment standards for these U and P chemicals. This does not, however, preclude the Agency from promulgating a concentration-based standard at a later date.

While the use of calibration standards is an integral component of all analyses, the Agency's SW-846 methods do not typically require that a calibration standard be available for every compound being analyzed. Surrogate compounds are often used as calibration standards in many analytical methods. The Agency could establish concentration-based treatment standards for a surrogate compound in the waste or for some other waste characteristic that could act as an indicator of effective treatment (i.e., an indicator parameter), provided that a correlation of the concentration of the surrogate or indicator parameter to the concentration of the constituent of interest can be established. In general, the lack of waste characterization data and the variability in waste composition for U and P wastes interferes with the establishment of surrogate or indicator parameters for many U and P wastes.

This does not preclude the Agency from the use of surrogates or indicator parameters in establishing concentration-based treatment standards. Where deemed appropriate, the Agency has specifically identified these surrogates or indicators on a waste code specific basis in today's proposed rule. In fact, in the Land Disposal Restrictions for Second Third Wastes (54 FR 26614, June 23, 1989), treatment standards for total and amenable cyanides have already been promulgated for several U and P waste codes that are listed as specific cyanide salts. In general, commenters to the proposed rule for these wastes supported the use of these indicator parameters.

In cases where these U and P chemicals are no longer produced or

used in this country, and are not reasonably expected to be detected in environmental or waste samples, the Agency may choose to not establish concentration-based treatment standards for particular constituents. In most cases, EPA does not wish to encourage a market for high-purity samples of these compounds, as might happen if it required that these compounds be analyzed, thus creating a demand for quantification reagent samples.

*(c) Stability in Water.* Some U and P compounds dissociate, decompose or otherwise significantly change their identity when exposed to water. EPA chooses not to set concentration-based BDAT standards for these compounds, because there is generally a high probability of the presence of water in many treatment residuals and particularly in wastes classified as wastewaters. Thus, while analytical methods may exist for some of these "unstable" chemicals when measured in nonaqueous matrices and even in aqueous samples (depending on their "half-life" of instability), accurate quantification of their concentration in treatment residuals where there is a reasonable expectation that water may be present would be severely hampered. For many of these chemicals, a high level of coordination of sampling and analytical personnel would be required in order to assure a consistency in holding times and thus highly variable analytical results might be expected.

In developing the list of chemicals to be analyzed for purposes of compliance with groundwater monitoring requirements of 40 CFR 264 (i.e., the chemicals listed in Appendix IX), EPA faced the same problem of identifying those chemicals that are "unstable" in water and therefore not amenable to these groundwater monitoring requirements. Consequently, EPA designates as "unstable" those U and P chemicals that were particularly excluded from Appendix IX for this reason. EPA is confident that it is correct in relieving the regulated community from the burden of undertaking analysis of hazardous waste treatment residuals for those U and P compounds excluded from Appendix IX because of their instability in water.

*(d) Multiple or Ambiguous Identity.* For several U and P waste codes, the specific listing for that waste code does not identify only one particular chemical for which the listing applies (e.g., P075 is listed as "Nicotine and salts" and P051 is listed as "Endrin and metabolites"). For purposes of compliance with the



treatment standards, the Agency has determined which chemicals should be analyzed (if any).

In cases where the U or P listing did not specify particular isomers and there are a limited number of isomers, treatment standards are typically reported as applicable to all isomers, are isomer specific, or are applicable to the sum of the isomers depending upon whether the identity of isomers can be distinguished.

When the exact identity of the chemical for which the U or P waste code is listed is ambiguous, or where the listing specifies "and salts" or "and metabolites", the Agency typically chooses to set a technology rather than a concentration-based standard in order to preclude analysis for a particular chemical that may not have even been present originally. The Agency also may choose to establish an indicator compound for these wastes (or the primary listed compound) that would assure treatment of any additional chemical that may fall into the broad listing (See earlier discussion of P030 in this section of today's preamble).

(3) *Current Generation and Land Disposal Practices.* Data indicate that there are relatively few generators of many of the U and P wastes. Information from the 1986 TSDR survey also suggests that the majority of these U and P wastes are not typically land disposed. The Agency considered proposing a treatment standard of "No Land Disposal Based on No Generation" for many of these wastes. However, the sporadic nature of generation suggests that these wastes may be generated at any time and thus may require land disposal of treatment residues.

While establishing a treatment standard of "No Land Disposal Based on No Generation" allows generators to petition for a variance from the treatment standard (40 CFR 268.44), the Agency prefers to establish concentration-based standards or methods of treatment whenever a transfer of standards can be reasonably performed. However, for some U and P wastes that have a very low probability of generation, the "No Land Disposal Based on No Generation" alternative may be feasible. This alternative may be particularly attractive for a few U and P wastes for which the Agency cannot identify sufficient data to show that treatment technologies are demonstrated or even applicable.

(4) *Dissolution for Treatment.* Some of the discarded or off-spec U and P chemicals, when existing as concentrated chemicals or mixtures, may be dissolved in a suitable solvent or water prior to treatment. Because this

is a form of dilution, the question arises whether it is a form of permissible dilution. Two such instances occur as follows: 1) concentrated organic liquids and solids are sometimes dissolved in appropriate organic solvents (or waste solvents) and then incinerated in a liquid injection system; and 2) concentrated inorganic chemicals and metal salts are sometimes dissolved in water or acidic media, chemically oxidized (or reduced), and precipitated as an insoluble salt. In all of these cases, this type of management is permissible because it renders the chemical suitable for treatment by the designated BDAT technology.

Where organic U and P wastes are generated in small amounts, however, incineration in a rotary kiln may be preferred over dissolution in order to reduce the risk from mixing and handling. However in other cases, dissolving the organic U and P chemicals in solvents may actually be desirable in order to reduce the maximum emission rate of halides or oxides of phosphorus, nitrogen, or sulfur that may occur from incinerating excessive amounts of the concentrated forms of these U or P chemicals. Thus, EPA does not wish to preclude dissolution for purposes of effective treatment.

(5) *Recycling Potential.* The Agency believes that it may be feasible to legitimately recycle some organic U and P wastes. For example, a true "off-spec" product could potentially undergo further on-site processing rather than land disposal, be sold as a low grade chemical product in the market, or be exchanged as a raw material to other industry participating in a hazardous waste exchange program. Indeed, these materials may not be solid wastes if legitimately recycled (see 40 CFR 261.33).

However, other forms of organic U and P wastes may require further treatment prior to recycling (e.g., organics that tend to polymerize or solidify may need to be stabilized prior to reuse). In addition, other organic U and P wastes may not be amenable to recycling for a variety of reasons. The major reason being that quite often other chemicals such as residual catalysts, unreacted reagent chemicals, by-products, or process contaminants are present in the waste that preclude their reuse. Because of the variety in possible contaminants per organic U and P waste, the Agency cannot identify specific waste characteristics per waste code that would allow the Agency to establish direct reuse as a treatment standard for the majority of U and P organic chemicals. The Agency solicits

data and information to identify those wastes (or subcategories based on certain waste characteristics), that are amenable to direct reuse and recycling.

EPA does not intend to preclude the legitimate recycling of any of these wastes. EPA notes, however, that soil and other residues from spilling these commercial chemicals would ordinarily not be recyclable. Indeed, the spilling onto the land is itself a type of disposal. Thus, EPA is proposing as part of today's rule a clarifying change whereby such soils and other spill residues would be solid wastes unless they are recycled a short time after the spill event (see section II.P. above and III.F. below).

(6) *Analysis of Existing and Newly Developed Treatment Data.* Overall, there are over 300 organic chemicals represented by the U and P waste codes. Existing treatment data for wastewater and nonwastewater forms of specific U and P wastes are somewhat limited. The treatability data that does exist is primarily for the corresponding U or P constituents as they are present in other wastes (such as the K wastes tested by the Agency). Therefore, in the development of today's proposed treatment standards, EPA examined all of the available BDAT data for the corresponding U and P constituents in approximately fourteen different incineration test burns of RCRA hazardous wastes. In addition, the Agency examined available data on the treatment of wastewaters.

The majority of all of these data appear to be for the U and P treatability subcategories identified as halogenated aliphatics, aromatics, polynuclear aromatic hydrocarbons, and oxygenated hydrocarbons. This seems logical in that for wastewaters most of the available data are for those constituents that are also designated as priority pollutants under regulation by the Agency's Office of Water, and that for nonwastewaters most of the available data are for organic chemicals that are typically used as solvents or pesticides. More information on the development of treatment standards for these wastes can be found in the background document for each treatability group in the RCRA docket.

(a) *Treatment Data for U and P Nonwastewaters.* For the purpose of this rulemaking, the Agency examined the relative availability, expense, and ease of generating new incineration data for nonwastewater forms of the organic U and P waste codes. EPA decided to select for testing a limited number of compounds representative of the various classifications inherent to the structure of these chemicals. These new data



were used in conjunction with previous data to develop treatment standards that were then transferred to the remaining untested wastes. The compounds that were tested were carefully selected as representative of the treatability of each group of waste codes, based on similarities in chemical structure (i.e., presence of key functional groups, elemental composition (including chlorine, sulfur, and nitrogen), number of carbon atoms, arrangement and number of aromatic and nonaromatic rings, isomer and homologue series, and degree of chlorination).

These new performance data on the treatment of the representative compounds were obtained utilizing a rotary kiln incinerator and performed by EPA in June, 1989. The feed included three specific RCRA hazardous wastes that contained constituents in the halogenated pesticide and chlorobenzene treatability group, in concentrations of up to 8%. The hazardous wastes from this treatability group that were burned include: Heptachlor process waste (which contained Chlordane, Heptachlor, hexachlorobutadiene and hexachlorocyclopentadiene), D014 (EP Toxic for Methoxychlor), and D016 (EP Toxic for 2,4-D).

In addition to the three hazardous wastes, the feed contained fifteen commercial chemical products representing other various U and P waste codes. These commercial chemical products were used because the Agency was unable to obtain any wastes specifically identified as U or P wastes in the period of time required to perform the test.

The burn was designed such that the physical forms, concentrations, and soil content of the feed would represent a range of wastes likely to exist. The treatability test consisted of two 6-hour burns consisting of 11 liquids and 7 solids. Clean fill (i.e., dirt) was added to produce ash that is necessary in order to analyze for treated concentrations (or detection limits), and to simulate a waste spilled on soil. Four sample sets of ash and scrubber water were analyzed for BDAT list constituents. (More information on the test burn can be found in the Onsite Engineering Report of the Third Incineration Treatability Test, July, 1989.)

The Agency is proposing to use much of these data to transfer concentration-based standards from these compounds to the various U, P, K, and D waste codes where other data are unavailable or of questionable value. These data will also supplement existing data that have

been judged to represent BDAT for other wastes.

(b) *Treatment Data for U and P Wastewaters.* Similar to the aforementioned test burn for nonwastewaters, the Agency is conducting wastewater treatment tests for selected U and P chemicals using wet air oxidation, powdered activated carbon treatment (PACT), and carbon adsorption. Since much of the currently available wastewater treatment data is from the treatment of relatively low concentrations of U and P constituents in industrial wastewaters, these studies have been particularly designed to examine the applicability of these technologies to wastewaters containing relatively high concentrations of U and P constituents. The data developed in these studies have been placed in the administrative record for inspection and comment.

For many of the U and P waste codes in today's rule, concentration-based standards for the wastewater forms have been developed based on concentrations of the constituents measured in incinerator scrubber waters. In general, when the Agency has appropriate wastewater treatment data from well-designed and well-operated wastewater treatment units, it prefers to use these data rather than use scrubber water concentrations to develop wastewater treatment standards. This does not, however, preclude the Agency from establishing treatment standards for other wastes based on constituent concentrations in incinerator scrubber waters and given the time constraints imposed by the statutory deadline, the Agency believes that the use of scrubber water data for the development of wastewater standards is a viable alternative to developing no standard. Treatment standards for these wastewaters based on incinerator scrubber water may also be appropriate when one considers that incineration typically provides significant destruction (even for wastewaters) and that some of these wastewaters may actually contain *high concentrations* (near 1% TOC) of organics. Furthermore, commenters to the Second Third proposed rule, indicated that they were indeed incinerating many wastewaters and that they did not want to be precluded from doing so where EPA had proposed only carbon adsorption as a method of treatment for wastewater forms of certain U and P organo-phosphorus pesticides.

The Agency has recently gathered and analyzed wastewater treatment data from various sources including: (1) the Office of Water's Industrial Technology

Division (ITD) and National Pollution Discharge Elimination System (NPDES) data (specifically from the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) data base); (2) the Hazardous Waste Engineering Research Laboratory (HWERL) database; (3) the Office of Solid Waste's BDAT data (from previous land disposal restrictions rules); and (4) additional wastewater treatment data were gathered from literature articles on wet air oxidation and PACT. As expected, these data include the treatment of wastewaters that are not specifically listed as D, F, K, U, or P wastewaters, but do contain varying concentrations of many of the corresponding constituents. While these data were not available in time to incorporate into the discussion of individual treatability groups in sections III.A.2. through III.A.7. of today's notice, or into the background document for each treatability group, these data are being placed in the administrative record for today's notice and the Agency has been able to develop alternative standards for wastewaters based on these data.

These alternative wastewater treatment standards are presented in section III.A.7. of today's notice as treatment standards for wastewater forms of multi-source leachate. While these standards are presented on a constituent basis, they correspond to the respective waste code. (For example, the alternative standard for "U220 (toluene)" wastewaters based on these new data is presented simply as a standard for "toluene" for wastewater forms of multi-source leachate in section III.A.7.; the standard for U220 (toluene) presented in section III.A.3.b. is the standard based on analysis of scrubber water.) Thus, the Agency is proposing these standards as alternative standards for all U and P wastewaters for which concentration-based standards based on incinerator scrubber waters have been proposed in sections III.A.2. and III.A.3. of today's preamble and for some wastewater forms of EP Toxic metals. Further information on these alternative standards based on these data can be found in the "BDAT Background Document for Wastewaters Containing BDAT List Constituents" in the administrative record for today's notice.

Much of these new data for wastewaters include analysis of composite samples rather than grab samples. Thus, the Agency has developed many of the alternative concentration-based treatment standards based on an analysis of composite samples rather than grab samples. Where data from analysis of



composite samples were used as the basis of the treatment standard, the Agency so indicates in the appropriate table of treatment standards.

The Chemical Manufacturing Association (CMA) has calculated suggested wastewater treatment standards for many constituents based on data contained in the OCPSF database, and has submitted these suggested limits to the Agency for review. However, standards based solely on these data may not be representative of the treatability of all wastewaters, in particular wastewater forms of U, P, and D wastes containing high concentrations of the respective chemicals. As an example, the standard suggested by CMA for chloroform in wastewaters is lower than that promulgated by the Agency specifically for K009 and K010 wastewaters. The Agency has not completed its review of CMA's suggested standards; however, it has placed this information in the administrative record for today's notice.

(7) *Methods of Treatment as U and P Wastewater Standards.* Based on analytical complications previously discussed in section III.A.1.h.(2.), the Agency is proposing certain methods of treatment as the treatment standard for many U and P wastewaters and nonwastewaters. Generally, for U and P nonwastewaters this process is relatively easy because incineration processes are relatively indiscriminate in the destruction of organics due to the high temperatures, efficient mixing, and consistent residence times. However, in the case of wastewater treatment technologies, there are more chemical specific factors that are involved such as: water solubility, instability, molecular size, volatility, elemental composition, and polarity of the specific chemical that is to be treated. Other waste characteristics will also affect the efficiency of treatment such as: total organic carbon, oil and greases, total dissolved solids, total suspended solids, pH, and alkalinity/acidity.

For these reasons, the Agency has grouped the organic U and P waste codes into treatability groups (as presented in sections III.A.2. and III.A.3.) that are designed to reflect similarities in wastewater and nonwastewater treatment besides similarities in structure or elemental composition. However, in some cases these similarities may not reflect similarities in treatability for all wastewater treatment technologies. As a result, the Agency has typically proposed more than one method of treatment as the treatment standard for

these U and P wastewater treatability groups.

In all cases, the Agency believes that incineration, while not always practical for wastewaters, will provide an efficient destruction of these organic U and P constituents in wastewaters. While the Agency does not want to identify incineration as the primary BDAT treatment technology for these wastewaters, it also does not want to preclude its use. In addition, the Agency does not want to process needless variances for a technology that is recognized to be effective. Therefore, in all cases, "Incineration as a Method of Treatment" is proposed as one of the alternative treatment standards for wastewater forms of these organic U and P wastes.

The wastewater treatment technology that most closely resembles incineration is wet air oxidation. It is specifically designed to destroy organics in wastewaters and efficiently oxidizes organics in aqueous media by operating at relatively high temperatures and high pressures. Furthermore, wet air oxidation is typically performed on wastewaters that contain relatively high concentrations of organics (i.e., those that are at or near the 1% TOC cut-off for wastewaters). For wastewaters that contain significantly lower concentrations of organics, chemical oxidation and biodegradation can typically provide the necessary destruction of organics to levels that can then be adsorbed onto activated carbon (as a polishing step). Since these technologies are known to provide effective treatment for constituents that can be analyzed, the Agency is therefore proposing multiple treatment technologies for most of the organic U and P constituents that require specified methods of treatment. None of these technologies have been specifically identified as better than the others due to the current lack of data for these constituents that are difficult to analyze, or for any other surrogate/indicator parameters. However, the Agency is currently investigating the potential use of surrogates/indicators that could be used to ensure complete destruction and to determine which technology performs best for these U and P constituents in wastewaters. The Agency is soliciting comment on the selection of surrogates (such as COD, BOD, TOC, and etc.) that could be established per waste or technology, and any data that may aid in the comparison of these technologies for these wastes. The Agency reminds commenters that these particularly difficult to analyze U and P wastewaters are generated at relatively few facilities,

and that surrogates that can be used to measure performance for these constituents may be best addressed in an individual facility's waste analysis plan.

For quite a few of the organic and some inorganic U and P wastes that require specified methods of treatment, concentration-based treatment standards have not been proposed because the compounds are relatively unstable in water. This instability implies that they should easily be destroyed with any chemical oxidant (and most probably at ambient temperature and air pressure). In a similar manner, biodegradation can be expected to result in oxidation of certain U and P organics. Again, due to the instability of these organic compounds in water, the Agency believes that biodegradation can provide effective removal of some of these organics from wastewaters.

(8) *Regulated Constituents.* The regulated constituents for the D, U, and P wastes generally are those specific constituents for which the D, U, or P waste is listed (as specified in 40 CFR 261.33 (e) and (f)). The regulated constituents for the F and K wastes were determined based on waste characterization, the constituents for which the F and K waste was listed, and compounds shown or expected to be present in the waste. Other than the D wastes, metals are typically regulated only for selected U, P, F, and K wastes in these treatability groups when they are expected to be present. More detail on the selection of regulated constituents can be found in the background documents for each treatability subcategory. The proposed regulated constituents for these wastes and the proposed treatment standards are presented in the tables at the end of each section.

#### *i. Procedures for Requesting Additional Data on Specific Treatment Standards*

The Agency is today proposing treatment standards according to a relatively rapid schedule. This schedule is statutorily imposed and requires that treatment standards must be developed for all remaining RCRA waste codes by May 8, 1990. If treatment standards are not developed by this so-called "hard hammer" date, the wastes are automatically prohibited from land disposal by statute.

Every effort has been made to develop treatment standards for all of these remaining waste codes in this proposed rule. In certain cases, however, EPA expects to receive additional data during the public comment period



pertaining to the proposed treatment standard. This additional data may be used to refine the proposed treatment standard. In order to give other interested parties the opportunity to comment on any data submitted during the public comment period, EPA will make these data available upon specific request.

In instances where EPA expects additional data to be submitted during the public comment period, the Agency identifies this potential in the appropriate section of the preamble. Commenters should attempt to identify all areas where additional data can be submitted without the Agency specifically requesting it. Commenters should view this proposal as their opportunity to provide the additional data required to develop these standards. Data submissions should be in compliance with all appropriate BDAT data requirements and should include all appropriate QA/QC information. The Agency also points out that treatment data must include analyses of treatment residuals and that operational evidence must be provided indicating that the treatment system was both well-designed and well-operated. Submission of such data does not guarantee that BDAT will be developed based on the submitted data. (EPA notes that commenters could have been legitimately aware of the need to generate such data since November, 1984. EPA thus will look with disfavor on comments protesting the lack of time to develop such data.)

Data submitted during the comment period must be properly noticed and available to the public. All new data must be submitted within 30 days of this notice in order for the Agency to give subsequent notice of these new data following the procedures outlined in this section. Data received after 30 days will be placed in the administrative docket for the final rule, but may not be considered in development of the final standards. Given the time constraints for this rule, data that are submitted as confidential business information limits the Agency's ability to incorporate into these treatment standards.

Commenters wishing to receive a copy of any additional data, should specifically request it in writing and submit it to the RCRA docket, identifying the request according to the specific preamble section numbers and title of interest (i.e., "III.A.5.g.—Arsenic Stabilization Data"). This request for additional data may be included as part of your comments on the overall proposed rule, or it may be made separately. The request for additional

data (as well as all comments on the overall proposed rule) must be submitted to the RCRA docket during the 45-day public comment period—the Agency prefers that these requests be submitted early in the comment period, i.e., within 30 days of the notice, in order to expedite this subsequent notice of data as it arrives.

The Agency intends to send copies of additional data only to persons specifically requesting it, following the aforementioned procedures. It will be extremely burdensome for the Agency to process requests for data that are nonspecific (e.g., requests for all data submissions). The Agency also points out that all new data will be submitted to the RCRA docket for public viewing as rapidly as possible. The Agency will allow 21 days from the date the additional data are mailed to those requesting it for review and submittal of any written response. Subsequent comments on the additional data must be sent to the RCRA docket and be clearly identified as "Response to Additional Data Pertaining to \* \* \* [preamble section numbers and specific treatment standard title]."

## 2. Proposed Treatment Standards for Halogenated Organic Wastes

*a. Introduction.* Many of the chemicals represented by the U and P wastes and many of the major constituents present in several D, F, and K wastes fall under a general category of chemicals known as halogenated organics. For the purposes of assessing BDAT, the Agency has determined that within this general category, there are six major subcategories of wastes based primarily on similarities in the structure of these halogenated organic chemicals. These subcategories are also based partially on the industrial use and waste generation patterns of the wastes. These major subcategories include: chlorinated aliphatics, halogenated pesticides, chlorobenzenes, halogenated phenolics, brominated organics, and miscellaneous halogenated organics.

(1) *Relationship to the California List Rule for HOCs.* The Agency promulgated treatment standards for certain California list wastes on July 8, 1987 (52 FR 25760). Treatment standards were promulgated for certain halogenated organic compounds (HOCs) when present in hazardous wastes at a total HOC concentration of greater than 1,000 parts per million (ppm), as well as for liquid RCRA hazardous wastes containing greater than 50 ppm of polychlorinated biphenyls (PCBs). Although PCBs are also halogenated organics, this stricter limit for PCBs was mandated by HSWA.

There is a regulatory overlap between treatment standards for California list HOCs and treatment standards for halogenated organics proposed in today's rule. The Agency has stated in previous rulemakings (see 52 FR 25773; 53 FR 31187) that, in cases when there is a regulatory overlap, the more waste-specific treatment standard and effective date applies. This principle is set out in the rules in section 268.32(h). The concentration-based treatment standards being proposed today, when promulgated, will therefore supercede the California list treatment standards because they are more specific treatment standards. However, if there is a national capacity variance based on the new standards, the old standards will continue to apply during the period of the variance. (See further discussion of this final point in section III.M. below.)

(2) *Specifying Incineration for Halogenated Nonwastewaters.* As generated, the majority of the wastes listed in this section of the preamble are likely to contain greater than 1,000 ppm of HOCs, and thus land disposal of these wastes is most likely already restricted by the California list prohibition for HOCs. This prohibition further establishes that BDAT for these HOCs is Incineration as a Method of Treatment, with Fuel Substitution as a Method of Treatment (burning in a boiler or industrial furnace) allowed as an alternative. The Agency assumed that there was sufficient fuel content in many of the wastes that would fall under the broad definition of HOC wastes.

In the proposal for the Second Third wastes (54 FR 1056, (January 11, 1989)), the Agency presented advance notice that it was considering the transfer of performance data to the majority of the remaining waste codes that contain halogenated organics from the incineration of various other halogenated wastes (such as K019 and F024). In doing so, the Agency indicated that incineration was the appropriate treatment technology and would probably be determined to be BDAT for these halogenated organic wastes. (The Agency in fact, specifically indicated each waste code that was considered a halogenated organic.) No comments were received indicating that any other technology should be considered BDAT for the majority of these halogenated organic wastes.

Due to the high concentrations of specific, identified halogenated organics known or anticipated to be present in these U and P off-spec chemicals; the relatively high toxicity of some of the



pesticides and miscellaneous halogenated organics; the anticipated low fuel value of these U and P wastes; and the need for control of HCl emissions from the destruction of halogenated organics, the Agency does not believe that fuel substitution is a viable alternative for the majority of specific U and P waste codes identified in this section.

In today's rule, the Agency is proposing that incineration represents BDAT for all of the halogenated organics presented in this section. Where the Agency is proposing "Incineration as a Method of Treatment" as the treatment standard for a particular halogenated organic waste code, it has not included fuel substitution as an alternative. However, where the Agency has proposed concentration-based standards, thermal destruction in fuel substitution units is not precluded.

(3) *Additional Wastewater Treatment Data.* Additional wastewater treatment data primarily from the Agency's Office of Water have been recently analyzed for incorporation into the treatment standards for many of the U and P wastes in this section. These data include the treatment of wastewaters that are not specifically listed as U or P wastewaters, but do contain many of the corresponding U, P, and metal constituents. While these data were not available in time to incorporate into this discussion or into the background document for these wastes, these data are being placed in the administrative record for today's notice. Therefore, the Agency is not precluded from using these data in promulgating the standards for these wastes. Further information on these data can be found in section III.A.1.h.(6.).

Alternative standards based on these data are presented in section III.A.7. of today's notice for wastewater forms of multisource leachate. These standards are presented on a constituent basis and correspond to the respective U or P wastewater. Thus, the Agency is proposing these standards as alternative standards for all U and P wastewaters for which concentration-based standards based on incinerator scrubber waters have been proposed in the following sections.

(4) *Specifying Technologies for Halogenated Wastewaters.* Based on analytical complications previously discussed in section III.A.1.h.(2.), the Agency is also proposing certain methods of treatment as the treatment standards for many U and P wastewaters. In the following sections (III.A.2.b. through f.) of the preamble the Agency identifies twenty five specific

halogenated organic U and P wastes for which the Agency is proposing three treatment technologies as alternative BDAT treatment standards: (1) Wet air oxidation followed by carbon adsorption; (2) Chemical oxidation followed by carbon adsorption; or (3) Incineration of wastewaters. Since these technologies are known to provide effective treatment for the halogenated organic constituents within each treatability group (as identified in III.A.2.) that can be analyzed, the Agency is therefore proposing these multiple treatment technologies for all of the twenty five U and P halogenated organics that require specified methods of treatment.

Biodegradation has not been specified as an alternative technology for halogenated organics, because they are generally thought of as more difficult to biodegrade than nonhalogenated organic due to the overall higher toxicity of the halogenated compared to their nonhalogenated counterparts. However, the Agency solicits comment and data that would indicate that the twenty five specific U and P halogenated organics are similar to the biodegradability of other halogenated organics and/or other nonhalogenated organics, and thereby, potentially serving as surrogates or indicators of efficient destruction. While biodegradation is not specifically specified as BDAT, it is not precluded from use as part of a treatment train, provided that it is not elsewhere prohibited as land disposal.

Carbon adsorption has been specified as part of the treatment train because these particular twenty five halogenated U and P organics are believed to be adsorbable when present in low concentrations, as might be expected in an effluent from either wet air or chemical oxidation.

The Agency further recognizes that while difficulties can arise in specifying only one treatment method for these wastewaters (as outlined in greater detail in section III.A.1.h.(7.)), the Agency must develop a treatment standard for these wastes to avoid the hard hammer and at the same time, somehow justify that these technologies provide significant treatment. None of these technologies have been specifically identified as better than the others by the Agency because of the lack of data for these specific twenty five halogenated organic constituents (due to the identified analytical complications) or for any surrogate parameters.

b. *Halogenated Aliphatics.* This subcategory of halogenated organics consists of six K wastes from the production of various halogenated

organics and nineteen U wastes. The individual waste codes are provided at the beginning of each subheading in this section. EPA grouped these waste codes together because the primary constituents for which the wastes were listed are halogenated aliphatic compounds. These compounds are all open chain, alkane or alkene hydrocarbons consisting of up to six carbons, with varying numbers of hydrogen atoms replaced by chlorine. The Agency is proposing to transfer standards for the organic constituents in these wastes based in part on this structural similarity. Thus, for purposes of BDAT, the Agency has grouped all of these wastes into one general treatability group identified as halogenated aliphatics.

(1) *K017 and K073 Wastes.*

K017—Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.

K073—Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.

Treatment standards for K017 and K073 wastes were originally scheduled to be promulgated as part of the First Third rulemaking (i.e., they were to be promulgated by August 8, 1988). The Agency did not promulgate standards for K017 or K073 by August 8, 1988, and as a result, land disposal of these wastes are currently subject to the "soft hammer" provisions of 40 CFR 268.8.

Concentration-based treatment standards for all wastewater and nonwastewater forms of K017 are proposed today based on the transfer of performance data from incineration of nonwastewater forms of F024 (wastes from the production of chlorinated aliphatics such as distillation residues, heavy ends, tars, and reactor clean-out wastes). Treatment standards for F024 were promulgated with the Second Third wastes on June 8, 1989 (54 FR 26594 (June 23, 1989)).

Concentration-based treatment standards for all wastewater and nonwastewater forms of K073 are proposed today based on the transfer of performance data from incineration of nonwastewater forms of K019 (heavy ends from the distillation of ethylene dichloride in ethylene dichloride production). Treatment standards for K019 were promulgated with the First Third wastes on August 8, 1988.

The transfer of standards is dependent upon the constituents present in each waste and the corresponding concentrations and waste characteristics of K019 and F024. The Agency compared these data to



determine which of the constituents in each waste most resembled the anticipated treatability of the constituents in K017 and K073. Details of the transfers can be found in the Background Document for K017 and K073 Wastes in the RCRA docket.

The Agency reminds commenters that there are very few (if any) of these wastes that are currently being generated as originally listed and that in practice, the standards will probably only be necessary for residues from previous disposal. The Agency believes that these residues should be similar or less difficult to treat than the original waste as generated.

#### (2) K021 Waste.

K021—Aqueous spent antimony catalyst from fluoromethane production.

Treatment standards for K021 wastes were originally scheduled to be promulgated as part of the First Third rulemaking (i.e., K021 wastes were to be promulgated by August 8, 1988). A treatment standard of "No Land Disposal Based on No Generation" for K021 nonwastewaters was promulgated on August 8, 1988. This standard, however, was subsequently revised on May 2, 1989 (54 FR 18836) to be applicable only to "Nonwastewater forms of these wastes generated by the process described in the listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes [Based on No Generation]." The Agency did not promulgate standards for the wastewater forms of K021 by August 8, 1988, and as a result, land disposal of K021 wastewaters is currently subject to the "soft hammer" provisions of 40 CFR 268.8.

In the proposal for the Second Third wastes (54 FR at 1100 (January 11, 1989)), EPA stated its intention to develop concentration-based treatment standards for all forms of K021 prior to May 8, 1990, and has therefore decided to propose to revoke the promulgated treatment standard of "No Land Disposal Based on No Generation" for K021 nonwastewaters. This is because there is a reasonable chance that these nonwastewaters may be generated.

Concentration-based treatment standards for organics in wastewater and nonwastewater forms of K021 are proposed today based on the transfer of performance data from incineration of nonwastewater forms of K019 (heavy ends from the distillation of ethylene dichloride in ethylene dichloride production). Treatment standards for K019 nonwastewaters were promulgated with the First Third wastes on August 8, 1988. Concentration-based treatment

standards for antimony in nonwastewater forms of K021 are proposed today based on the transfer of performance data from the stabilization of ash from the incineration of nonwastewater forms of K048 (dissolved air flotation (DAF) float from the petroleum refining industry) and K051 (API separator sludge from the petroleum refining industry) wastes.

Because the concentration of antimony in the untreated incinerator ash was relatively low compared to concentrations of antimony that might be expected in a K021 waste or clean-up residue, the Agency is simultaneously proposing a concentration-based standard for antimony nonwastewaters of 5.6 ppm, based on the performance of vitrification of arsenic wastes (see section III.A.5.(a.) of today's notice describing the development of this arsenic standard for D004 wastes). The Agency believes that this transfer of treatment performance data may be appropriate due to the chemical similarity between arsenic and antimony. The Agency, however, is seeking comment of which standard is more appropriate for K021 waste.

The treatment standard for antimony in K021 wastewaters is based on concentrations found in the scrubber water from the incineration of K048 and K051. However, additional data are available for the treatment of antimony in wastewaters and as a result the Agency is simultaneously proposing a concentration-based standard for antimony wastewaters of 1.9 ppm, based on the performance of lime precipitation, sedimentation, and filtration (see previous discussion on these additional data in III.A.2.a.(3.) above). Details on the transfers can be found in the Background Document for K021 wastes in the RCRA docket.

#### (3) K028, K029, K095 and K096 Wastes.

K028—Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.

K029—Waste from the product steam stripper in the production of 1,1,1-trichloroethane.

K095—Distillation bottoms from the production of 1,1,1-trichloroethane.

K096—Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

Treatment standards for K028, K029, K095, and K096 wastes were originally scheduled to be promulgated as part of the Second Third rule. Treatment standards were only promulgated, however, for the wastewater forms of K028 and the nonwastewater forms of K028, K029, K095 and K096. Since the Agency did not promulgate standards for the wastewater forms of K029, K095,

and K096 by their statutory deadline, land disposal of these wastewaters are currently subject to the "soft hammer" provisions in 40 CFR 268.8.

Initially, the Agency stated that there was no need to develop wastewater standards for K029, K095, and K096 because it was unlikely that they were being generated due to the recycling and generation practices for these three wastes. However, comments were received that indicated that the likelihood for their generation was reasonably good. While the Agency agreed with the commenters, concentration-based treatment standards were not promulgated because none had been proposed.

In today's rule, the Agency is proposing concentration-based standards for organics in K029, K095 and K096 wastewaters based on the transfer of performance data from rotary kiln incineration of K019 (heavy ends from the distillation of ethylene dichloride in ethylene dichloride production) nonwastewaters. These treatment standards for organics have been developed similar to those promulgated for K028 wastewaters. The Agency is however, proposing to revoke the reserved status for metal standards in K029, K095 and K096 wastewaters. The Agency has determined that based on waste characterization data on the corresponding nonwastewaters, it is believed that these three wastes are essentially all organic and would not be expected to contain any BDAT list metal constituents.

The Agency stated that it intended to develop standards for metals in nonwastewater forms of K028 and propose them with the Third wastes prior to promulgation by May 8, 1990. The Agency reserved standards based on TCLP analyses for chromium and nickel in the promulgated standards for K028 nonwastewaters. While EPA proposed standards based on stabilization of K048 and K051 incinerator ash for K028 nonwastewaters as part of the Second Third proposed rule, the Agency did not promulgate these standards as proposed because new data on the stabilization of F024 incinerator ash were developed. However these data were received too late to be promulgated in the final rule for Second Third wastes (54 FR 26617). The Agency believes that these new data for stabilized F024 ash more closely resemble what would be expected for stabilized K028 ash. Thus, treatment standards for metal constituents in K028 nonwastewaters are proposed today based on the transfer of TCLP data from stabilization of F024 wastes. These



treatment standards for metals are simultaneously being proposed for F024 nonwastewaters in today's rule. The Agency will consider all comments on the standards for F024 as they also relate to K028 nonwastewaters.

*(3) U Wastes for Which EPA is Proposing Concentration-Based Standards.*

U044—Chloroform  
U074—1,4-Dichloro-2-butene  
U076—1,1-Dichloroethane  
U077—1,2-Dichloroethane  
U078—1,1-Dichloroethylene  
U079—1,2-Dichloroethylene  
U080—Methylene chloride  
U083—1,2-Dichloropropane  
U084—1,3-Dichloropropene  
U131—Hexachloroethane  
U184—Pentachloroethane  
U208—1,1,1,2-Tetrachloroethane  
U209—1,1,2,2-Tetrachloroethane  
U210—Tetrachloroethylene  
U211—Carbon tetrachloride  
U226—1,1,1-Trichloroethane  
U227—1,1,2-Trichloroethane  
U228—Trichloroethylene  
U243—Hexachloropropene

In developing the treatment standards for these nineteen halogenated aliphatic U wastes, the Agency reviewed treatability and detection limit data from several different incineration test burns conducted by EPA for various F and K wastes. These data represented a myriad of different hazardous wastes that were generated and treated at several different incineration facilities.

The Agency determined that there was substantial treatment data for many of these halogenated aliphatics from the incineration of K019 and F024. Data from the test burns of both F024 and K019 wastes included detection limit information on the majority of the halogenated aliphatic chemicals which correspond to these U wastes. The waste characterization data for the untreated wastes showed concentrations of these halogenated aliphatic constituents ranging from very low levels in some wastes, to high levels in others. In general, the majority of the measured values for halogenated aliphatics in the incinerator residues were approximately at the detection limit for all of the constituents analyzed. In the incinerator ash, the measured values or detection limits ranged from <0.005 mg/kg to <10 mg/kg. In the scrubber water, the measured values or detection limits ranged from <0.005 ppm to <0.05 ppm.

The Agency also reviewed new performance data for carbon tetrachloride, methylene chloride, 1,1,1-trichloroethane, tetrachloroethane and hexachloroethane obtained from a rotary kiln incinerator test burn EPA

performed in June, 1989. These five chemicals were specifically selected for this test burn as representatives of all of the U wastes in the halogenated aliphatic treatability group. See details of this test burn previously discussed in section III.A.1.h.(6.) of today's preamble. The Agency believes that these new data coupled with the previously mentioned data provide a sufficient range of concentration of halogenated aliphatic chemicals in untreated wastes to be considered representative of all halogenated aliphatic U wastes.

The Agency has reviewed both characterization and performance data for each of the halogenated aliphatics present in treated and untreated F024 wastes, K019 wastes, and wastes from the June, 1989, EPA incineration test burn, and has determined that the transfer of performance data primarily from the incineration of K019 nonwastewaters is appropriate for the development of the concentration-based treatment standards for all halogenated aliphatic waste codes proposed in today's rule. Details on the development of treatment standards can be found in the Background Document for Halogenated Aliphatics in the RCRA docket.

U074, U079 and U084 wastes are listed as 1,4-dichloro-2-butene, 1,2-dichloroethylene and 1,3-dichloropropene, respectively. Due to the position of the chlorines on these alkenes, all of the chemicals have stereoisomers identified as "cis-" and "trans-". For U074 and U084 wastes both the "cis-" and the "trans-" isomers can be quantified using verified SW-846 methods. Therefore, concentration-based treatment standards are being proposed for both isomers of the two compounds. While 40 CFR 261.33(f) lists U079 wastes as 1,2-dichloroethylene, the chemical abstracts identification number that is listed for this compound (156-60-5) is specific for trans-1,2-dichloroethylene. Since the trans-isomer is also specified in 40 CFR 261 Appendix VIII, the Agency is thus proposing concentration-based treatment standards only for trans-1,2-dichloroethylene for U079 wastes.

The treatment standards for wastewater forms of the U wastes presented in the tables following this section, have been calculated based primarily on the detection limits of these constituents in scrubber waters from incineration of K019 nonwastewaters. However, additional data are available for the treatment of these constituents in wastewaters and alternative standards based on these data are presented in section III.A.7. of today's notice for

wastewater forms of multi-source leachate. (See previous discussions on these data and alternative standards in section III.A.1.h.(6.) and III.A.2.a.(3).)

**BDAT TREATMENT STANDARDS FOR K017**

[Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
1,2-Dichloropropane.....	0.014
1,2,3-Trichloropropane.....	0.014
Bis(2-chloroethyl)ether.....	1.8

**BDAT TREATMENT STANDARDS FOR K017**

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
1,2-Dichloropropane.....	0.014
1,2,3-Trichloropropane.....	0.014
Bis(2-chloroethyl)ether.....	0.037

**BDAT TREATMENT STANDARDS FOR K021**

[Nonwastewaters]

[Revised from no land disposal]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Chloroform.....	6.2
Carbon tetrachloride.....	6.2
	EP(mg/l)
Antimony.....	0.23

**BDAT TREATMENT STANDARDS FOR K021**

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Chloroform.....	0.008
Carbon tetrachloride.....	0.008
Antimony.....	0.60



BDAT TREATMENT STANDARDS FOR  
K028[Nonwastewaters]<sup>1</sup>

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Chromium (total).....	0.073
Lead.....	0.021
Nickel.....	0.088

<sup>1</sup> These standards do not replace the standards for the organics in K028 nonwastewaters that were promulgated with the Second Third wastes.

BDAT TREATMENT STANDARDS FOR  
K029

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Chloroform.....	0.007
1,2-Dichloroethane.....	0.007
1,1-Dichloroethylene.....	0.033
1,1,1-Trichloroethane.....	0.007
Vinyl chloride.....	0.033

BDAT TREATMENT STANDARDS FOR  
K073

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Carbon tetrachloride.....	6.2
Chloroform.....	6.2
Hexachloroethane.....	28
Tetrachloroethene.....	6.2
1,1,1-Trichloroethane.....	6.2

BDAT TREATMENT STANDARDS FOR  
K073

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Carbon tetrachloride.....	0.008
Chloroform.....	0.008
Hexachloroethane.....	0.033
Tetrachloroethene.....	0.008
1,1,1-Trichloroethane.....	0.008

BDAT TREATMENT STANDARDS FOR  
K095

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
1,1,1,2-Tetrachloroethane.....	0.007
1,1,2,2-Tetrachloroethane.....	0.007
Tetrachloroethene.....	0.007
1,1,2-Trichloroethane.....	0.007
Trichloroethene.....	0.007
Hexachloroethane.....	0.033
Pentachloroethane.....	0.007

BDAT TREATMENT STANDARDS FOR  
K096

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
1,1,1,2-Tetrachloroethane.....	0.007
1,1,2,2-Tetrachloroethane.....	0.007
Tetrachloroethene.....	0.007
1,1,2-Trichloroethane.....	0.007
Trichloroethene.....	0.007
1,3-Dichlorobenzene.....	0.008
Pentachloroethane.....	0.007
1,2,4-Trichlorobenzene.....	0.023

BDAT TREATMENT STANDARDS FOR  
U044, U074, U076, U077, U078, U079,  
U080, U083, U084, U131, U184, U208,  
U209, U210, U211, U226, U227, U228,  
AND U243

[Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U044	Chloroform.....	6.2
U074	trans-1,4-Dichloro-2-butene.....	30
U074	cis-1,4-Dichloro-2-butene.....	30
U076	1,1-Dichloroethane.....	6.2
U077	1,2-Dichloroethane.....	6.2
U078	1,1-Dichloroethylene.....	6.2
U079	trans-1,2-Dichloroethylene.....	6.2
U080	Methylene chloride.....	31
U083	1,2-Dichloropropane.....	15
U084	cis-1,3-Dichloropropene.....	15
U084	trans-1,3-Dichloropropene.....	15
U131	Hexachloroethane.....	30
U184	Pentachloroethane.....	31
U208	1,1,1,2-Tetrachloroethane.....	6.2
U209	1,1,2,2-Tetrachloroethane.....	6.2
U210	Tetrachloroethylene.....	6.2
U211	Carbon tetrachloride.....	6.2
U226	1,1,1-Trichloroethane.....	6.2
U227	1,1,2-Trichloroethane.....	6.2
U228	Trichloroethylene.....	5.6
U243	Hexachloropropene.....	37

BDAT TREATMENT STANDARDS FOR  
U044, U074, U076, U077, U078, U079,  
U080, U083, U084, U131, U184, U208,  
U209, U210, U211, U226, U227, U228,  
and U243[Wastewaters]<sup>1</sup>

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U044	Chloroform.....	0.007
U074	trans-1,4-Dichloro-2-butene.....	0.034
U074	cis-1,4-Dichloro-2-butene.....	0.034
U076	1,1-Dichloroethane.....	0.007
U077	1,2-Dichloroethane.....	0.007
U078	1,1-Dichloroethylene.....	0.007
U079	trans-1,2-Dichloroethylene.....	0.007
U080	Methylene chloride.....	0.037
U083	1,2-Dichloropropane.....	0.067
U084	cis-1,3-Dichloropropene.....	0.067
U084	trans-1,3-Dichloropropene.....	0.067
U131	Hexachloroethane.....	0.034
U184	Pentachloroethane.....	0.037
U208	1,1,1,2-Tetrachloroethane.....	0.007
U209	1,1,2,2-Tetrachloroethane.....	0.007
U210	Tetrachloroethylene.....	0.007
U211	Carbon tetrachloride.....	0.007
U226	1,1,1-Trichloroethane.....	0.007
U227	1,1,2-Trichloroethane.....	0.007
U228	Trichloroethylene.....	0.007
U243	Hexachloropropene.....	0.047

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6)(b).

*c. Halogenated Pesticides and Chlorobenzenes.* This subcategory of halogenated organics consists of six characteristic D wastes, nine K wastes from the production of various halogenated pesticides and chlorobenzenes, and twenty six U and P wastes. EPA grouped these waste codes together because the primary constituents for which the wastes were listed are halogenated organic compounds that are (or have been) primarily used as pesticides. While other halogenated organics have been (or could be) used as pesticides, the Agency has grouped these particular halogenated organics together due to their similarities in their common use as pesticides, their ability to be analyzed, and similarities in structure. Thus, for purposes of BDAT, the Agency has grouped all of these wastes into one general treatability group identified as "halogenated pesticides and chlorobenzenes".

This subcategory has been further divided into five subcategories based primarily on similarities in chemical structure for the purposes of transferring treatability data. These subcategories include: 1) Chlorinated Norbornane and Norbornene Derivatives; 2)



Chlorobenzenes; 3) Chlorophenoxyacetic Acids and Derivatives; 4) Chlorinated Diphenyls; and 5) Lindane and Hexachlorobutadiene. The individual waste codes within each subcategory are provided at the beginning of each subheading in section III.A.2.c.(3.) of today's preamble.

(1) *Availability of Treatment Data for These Wastes.* The Agency has determined that only a limited amount of treatability data on halogenated pesticides and chlorobenzenes exist. In section III.A.1.h.(6.) of today's preamble, the Agency presented information on an extensive June, 1989 test burn for multiple chemical wastes including several halogenated pesticides. The data obtained from this test burn were used in conjunction with other existing incineration data to develop proposed treatment standards for the pesticides tested. The Agency is also proposing to transfer these performance data to the remaining untested pesticide wastes.

The feed wastes for this test burn included three RCRA hazardous wastes that contained constituents in the halogenated pesticide and chlorobenzene treatability group present in concentrations of up to 8% by weight. These three wastes included: (1) a Heptachlor process waste which contained Chlordane, Heptachlor, hexachlorobutadiene and hexachlorocyclopentadiene; (2) a D014 (EP Toxic for Methoxychlor) waste; and (3) a D016 (EP Toxic for 2,4-D) waste. Specific details and additional information on the test burn can be found in the Onsite Engineering Report of the Third Third Incineration Treatability Test, July, 1989.

The Agency is proposing to transfer concentration-based standards from these compounds as well as from the other existing data to the remaining D, U, P, and K halogenated pesticide and chlorobenzene waste codes. More information on the development and transfer of treatment standards for these wastes can be found in the background document for these wastes in the RCRA docket.

(2) *Treatment Standards for Wastewaters.* The treatment standards for wastewater forms of the U wastes presented in the tables following this section, have been calculated based primarily on the detection limits of these constituents in scrubber waters from incineration of nonwastewaters containing halogenated pesticides. However, additional data are available for the treatment of these constituents in wastewaters and alternative standards based on these data are presented in section III.A.7. of today's notice for

wastewater forms of multi-source leachate. (See previous discussions on these data and alternative standards in section III.A.1.h.(6.) and III.A.2.a.(3.)).

(3) *Regulation of EP Toxic Halogenated Pesticides.* The new data from EPA's June, 1989 testing of rotary kiln incineration on multiple wastes, including D014 and D016 wastes, (see section III.A.1.h.(6.)) indicate that all of the halogenated pesticides that were present in the feed can be incinerated to detection limits (as measured using analysis of total constituent concentrations in both the ash and scrubber water). As a result, concentration-based standards that are near the detection limits in their respective media (i.e., wastewaters and nonwastewaters) are being proposed today for all of the halogenated pesticides in the respective U, P, and K wastes of this treatability group. The Agency believes that the wastes tested represent the most difficult to treat wastes.

The Agency is proposing two options for treatment standards for EP Toxic halogenated pesticides wastes (D012, D013, D014, D015, D016 and D017). Based on the aforementioned data, the Agency is proposing one option of concentration-based treatment standards based on the ability of incineration to destroy these pesticides to detection limits. (Note: These proposed standards are based on the analysis of total constituents rather than analysis of EP or TCLP leachates.) The Agency believes that this provides a consistency in approach with the proposed treatment standards for the corresponding U, P and K wastes.

Because these data indicate that these D pesticides can be incinerated to detection limits, the Agency further believes that compliance with this standard can be demonstrated by performing a total constituent analysis of the ash samples for these pesticides rather than performing the more expensive and more time-consuming extraction procedure for these pesticides. One can then assume that the total concentration of the pesticide measured in the incinerator ash corrected for the appropriate dilution factor (which is part of the extraction procedure protocol) provides a reasonable surrogate for actual measurement of the concentration in an extract provided that the total concentration is expected to be near the detection limit.

As discussed in detail in section III.C. of today's preamble, the Agency has determined that it may have the authority to establish treatment standards below the characteristic level

for these wastes. The Agency is also proposing a second option of limiting the treatment standard for D012, D013, D014, D015, D016 and D017 wastes to their respective characteristic levels. The Agency believes that the total constituent standards proposed in option one are preferable in that it assures the public that these chemicals are being destroyed to the best levels that are achievable. This comports with the statutory policy of reducing the uncertainties inherent in hazardous waste land disposal, as well as specific Congressional directives to destroy hazardous organic constituents, see, e.g., 130 Cong. Rec. S9179 (July 25, 1984) (statement of Sen. Chaffee), and results in minimization of threats to human health and the environment. EPA also finds it anomalous that standards for the same pesticides will be lower than the characteristic level when the pesticides are disposed in their U or P form, but cannot be so limited when the pesticides are discarded in the EP toxic form. This result does not appear to further any statutory policy. The Agency specifically solicits comments on these two options, and on the policy support for choosing a level based on the characteristic level.

The Agency points out to the commenters that there are not very many of these wastes being generated and that although the treatment standards are based on incineration for these wastes, the use of other technologies is permitted to achieve these concentration-based standards. In addition, the Agency refers commenters to section III.A.1.g. of today's preamble for a more complete discussion of other general issues pertaining to all characteristic wastes, including these D pesticides.

#### (4) *Discussion of Individual Treatability Groups—(a) Chlorinated Norbornane and Norbornene Derivatives.*

D012—EP Toxic for Endrin.

D015—EP Toxic for Toxaphene.

K032—Wastewater treatment sludge from the production of Chlordane.

K033—Wastewater treatment scrubber water from the chlorination of cyclopentadiene in the production of Chlordane.

K034—Filter solids from filtration of hexachlorocyclopentadiene in the production of Chlordane.

K041—Wastewater treatment sludge from the production of Toxaphene.

K097—Vacuum stripper discharge from the Chlordane chlorinator in the production of Chlordane.

K098—Untreated process wastewater from the production of Toxaphene.



P004—Aldrin  
 P037—Dieldrin  
 P050—Endosulfan  
 P051—Endrin and metabolites  
 P059—Heptachlor  
 P060—Isodrin  
 P123—Toxaphene  
 U036—Chlordane  
 U130—Hexachlorocyclopentadiene  
 U142—Kepone

The Agency has grouped these eighteen waste codes together because they all contain or represent halogenated pesticides that have the structural classification known as chlorinated norbornane and norbornene derivatives. This classification basically consists of compounds having multicyclical, fused-ring, hydrocarbon structures (one of which being a six-membered ring) that have varying numbers of hydrogen atoms replaced by chlorine, methyl groups or other simple functional groups. Hexachlorocyclopentadiene and Kepone, the compounds for which U130 and U142 were listed, are exceptions to the norbornene classification since they do not have a six-membered ring in their structure. However, their structures are somewhat similar to the norbornane and norbornene derivatives, and thus, are included in this subcategory of halogenated pesticides.

The Agency has data on incineration of Heptachlor, Chlordane, and hexachlorocyclopentadiene that were used in developing the standards for this subgroup of halogenated pesticides. The new data from EPA's June 1989 testing of rotary kiln incineration indicate that Heptachlor, Chlordane and hexachlorocyclopentadiene can be incinerated to detection limits (as measured in both the ash and scrubber water). As a result, concentration-based standards based on these detection limits (using analysis of total constituent concentrations) are being proposed today for P059, U036, and U130 wastes. Standards for P004, P037, P050, P051, P060, P123 and U142 are being proposed based on detection limits for the corresponding constituents from fourteen incineration treatment tests.

In a similar manner, concentration-based standards have been developed for the major hazardous constituents anticipated to be present in K032, K033, K034, K041, K097, and K098 wastes. The organic constituents selected for regulation in these K wastes are specified in the treatment standards at the end of this section. Details on the selection of constituents and the transfer of performance data for these wastes are provided in the background document for these halogenated pesticide wastes.

As discussed earlier in this section, the Agency is today proposing two sets of concentration-based standards for D012 and D015 characteristic wastes. One set of standards is based on the characteristic levels and the other set of standards were developed from incineration treatment data.

Endosulfan, the compound for which P050 was listed as a hazardous waste, commonly exists as a mixture of two isomers (i.e., Endosulfan I and Endosulfan II). Both can be analyzed by SW-846 Method 8080 for organochlorine pesticides. In fact, analytical laboratories typically report analysis for each. Accordingly, the concentration-based standards for P050 are proposed for Endosulfan I and II. In addition, Endosulfan can be converted to Endosulfan sulfate in environmental samples. The Agency anticipates that Endosulfan sulfate, which is also on the Priority Pollutant List used by the Agency's Office of Water, will be typically found in the presence of Endosulfan.

In a similar manner, Heptachlor (P059) can be commonly converted to Heptachlor epoxide in certain environmental conditions. Again analytical laboratories typically report results for Heptachlor and for Heptachlor epoxide (which is also on the Priority Pollutant List). Accordingly, concentration-based standards for P059 are today proposed for Heptachlor and Heptachlor epoxide.

P051 is specifically listed in 40 CFR 261.33(e) as "Endrin and metabolites". The most common metabolite of Endrin is the Priority Pollutant, Endrin aldehyde. Concentration-based standards for P051 are thus proposed for Endrin and Endrin aldehyde.

(b) *Chlorobenzenes.*

K042—Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.

K085—Distillation of fractionation column bottoms from the production of chlorobenzenes.

K105—Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.

U037—Chlorobenzene

U070—1,2-Dichlorobenzene

U071—1,3-Dichlorobenzene

U072—1,4-Dichlorobenzene

U127—Hexachlorobenzene

U183—Pentachlorobenzene

U185—Pentachloronitrobenzene

U207—1,2,4,5-Tetrachlorobenzene

The Agency has grouped these three K wastes and eight U wastes together because they all contain or are represented by halogenated organics

that have the structural classification known as chlorobenzenes. These chemicals consist of one benzene ring with increasing chlorine substitution and their associated isomers.

The Agency has data on the incineration of all of the chlorobenzenes with the exception of 1,3-dichlorobenzene. More information on these data can be found in the background document for these wastes. These data were used to develop standards for all of the chlorobenzene wastes in this treatability group. Treatment standards for 1,3-dichlorobenzene were developed from examination of detection limit data for this constituent from the fourteen incineration treatment tests.

The data indicate that these chemicals can be incinerated to at or near detection limits for these chemicals, which generally range in the treatment residuals from <0.005 ppm to <10 ppm in the ash and from <0.002 mg/l to <0.013 mg/l in the scrubber water. As a result, EPA is proposing concentration-based standards based on these detection limits (using analysis of total constituent concentrations) for the organic constituents in these waste codes. These incineration data are also the only available treatment data for these wastes. More information on the development of these standards can be found in the background document for these wastes in the RCRA Docket.

For K085 wastes the Agency determined that the untreated wastes often contained various concentrations of PCBs. As indicated in the proposed rule for Second Third wastes, there were some indications that some K085 wastes may contain greater than 50 ppm of PCBs. However, the Agency could not verify that these levels were always exceeded. Nevertheless, the Agency has decided to propose concentration-based treatment standards for PCBs for both wastewater and nonwastewater forms of K085. These standards are listed for seven of the common mixtures of PCBs known originally by the brand name of Aroclor (i.e., the proposed standards are listed for Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260). If K085 Wastes exceed 50 ppm PCBs, they must be incinerated in a TSCA permitted facility (several of the commercial facilities that are permitted for RCRA wastes are also permitted for PCB contaminated wastes under TSCA).

(c) *Chlorophenoxycarboxylic Acids and Derivatives.*

D016—EP Toxic for 2,4-D

D017—EP Toxic for 2,4,5-TP (Silvex)

U240—2,4-D, salts and esters



These three waste codes have been grouped together because they contain 2,4-dichlorophenoxyacetic acid (commonly referred to as 2,4-D), 2,4,5-trichlorophenoxypropionic acid (commonly referred to as 2,4,5-TP), or salts and esters of 2,4-D. All of these chemicals are classified as chlorophenoxy carboxylic acids or esters. The functional groups common to these compounds are an aromatic ring, a carbon-oxygen ester linkage, and several chlorine atoms (two or three) on the aromatic ring.

The Agency has data on the incineration of 2,4-D that were used in developing the standards for D016 and U240. The data indicate that 2,4-D can be incinerated to detection limits in the ash and in the scrubber water (based on analysis of total constituent concentrations). Detection limit data for 2,4,5-TP in fourteen incineration tests were used in developing treatment standards for D017. The Agency is proposing concentration-based standards for these wastes based on their respective detection limits.

According to 40 CFR 261.33(f), wastes identified as U240 are listed for the presence of 2,4-D or its various salts and/or esters. Because 2,4-D salts and esters are not analyzed as 2,4-D, the Agency is today proposing "Incineration as a Method of Treatment" for 2,4-D salts and esters identified as U240 nonwastewaters. For the wastewater forms of 2,4-D salts and esters, EPA is proposing a treatment standard of "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment". (See discussion on selecting these technologies as BDAT for halogenated organics in section III.A.2.a.(4.) above.) These wastewater technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar U and P waste codes. The use of other technologies is not precluded prior to or following the use of these specified technologies provided the other technologies do not allow land disposal (i.e., land treatment). For U240 wastes expected to be simply 2,4-D, the Agency is also proposing concentration-based standards based on the analysis for only 2,4-D. Thus, where a facility can reasonably assume that only 2,4-D is being handled, only the concentration-based treatment standard for 2,4-D would be applied. However, should one expect that salts or esters could be formed during storage, treatment, or disposal, the U240 wastes would have to be treated according to the standard methodology for salts and esters.

As discussed earlier in this section, the Agency is today proposing two sets of concentration-based standards for D016 and D017 characteristic wastes. One set of standards is based on the characteristic levels and the other set of standards were developed from incineration treatment data.

Accuracy data for these compounds from the test burn data indicate a highly variable recovery of spiked ash samples. This, coupled with the fact that U240 is listed as 2,4-D, salts and esters, has led the Agency to simultaneously propose an alternative treatment standard of "Incineration as a Method of Treatment" for all three of these wastes. The Agency is specifically soliciting comment and data on the routine achievability of these standards for chlorophenoxy carboxylic acids and esters. In particular, the Agency is requesting QA/QC data as well as detection limit data (as measured in ash samples from the incineration of these or similar wastes) for not only 2,4-D and 2,4,5-TP, but also the salts and esters of 2,4-D.

#### (d) Chlorinated Diphenyls.

D014—EP Toxic for Methoxychlor  
U038—Chlorobenzilate  
U060—DDD  
U061—DDT  
U132—Hexachlorophene  
U247—Methoxychlor

These six waste codes have been grouped together because they all contain halogenated pesticides classified as chlorinated diphenyl compounds. Diphenyls are compounds consisting of two benzene rings attached to a single, common carbon atom. (Diphenyls are not to be confused with biphenyls which have the structure of two benzene rings attached directly to each other.) The chlorinated diphenyls represented by these waste codes have varying degrees of chlorine substitution on the benzene rings and on the carbon in the middle.

The Agency has data on the incineration of Methoxychlor that were used in developing the standards for D014 and U247. The data indicate that Methoxychlor can be incinerated to detection limits in the ash and in the scrubber water. Standards for the remaining waste codes in this treatability group were developed using detection limit data from fourteen incineration treatment tests. As a result, concentration-based standards based on these detection limits (using analysis of total constituent concentrations) are being proposed today for U038, U060, U061, U132, and U247 wastes. As with the other characteristic pesticide D wastes, the standard for D014

(Methoxychlor) is being proposed as two sets of concentration-based standards. One set of standards is based on the characteristic levels and the other set of standards were developed from incineration treatment data.

DDD and DDT, the compounds for which U060 and U061 were respectively listed, can both exist as one of two isomers (i.e., o,p'-DDD and p,p'-DDD; o,p'-DDT and p,p'-DDT respectively). All of these isomers can be analyzed by SW-846 Method 8080 for organochlorine pesticides. Analytical results for DDD and DDT are often reported separately for each isomer. However, the predominant isomer for both is the p,p'-isomer. Because of this, the Agency is proposing that the concentration-based standards for U060 and U061 are based on the analysis for both isomers. In addition, DDD and DDE are common breakdown products of DDT. Accordingly, the Agency is today proposing to regulate the two isomers of DDD, DDE and DDT in U061 wastes. However, the Agency is soliciting comment on the need to regulate these waste codes for all isomers of the constituents and their breakdown products, and is not precluded from promulgating the standards for only the p,p'-isomers.

#### (e) Lindane and Hexachlorobutadiene.

D013—EP Toxic for Lindane  
U128—Hexachlorobutadiene  
U129—Lindane

Lindane (U129) is the gamma-isomer of a class of compounds known as hexachlorocyclohexanes (a cyclic six membered hydrocarbon ring with a chlorine substituted on each carbon) and is often referred to as "gamma-BHC" (Note: BHC is an abbreviation for benzene hexachloride—which is a misnomer because benzene is not part of the structure). Hexachlorobutadiene (U128) has been placed in this subcategory because it has the same number of chlorine atoms (six) and has a hydrocarbon structure consisting of four carbon atoms linked by a conjugated double bond system. Both of these chemicals are thus chlorinated aliphatics and both were typically used as pesticides or in the production of pesticides. The three wastes represented by these chemicals have not been grouped with the chlorinated aliphatics due to the differences in use of the compounds. (The chlorinated aliphatics discussed in section III.A.2.a. are typically used as solvents.)

The Agency has incineration data for hexachlorobutadiene from the June, 1989 test burn. In addition to the data from



the June, 1989 test: burn, the Agency has detection limit data for hexachlorobutadiene in ash samples of K019. These K019 data consists of six sample sets of <10 ppm in the ash and <0.01mg/1 in the scrubber water from rotary kiln incineration. As a result, concentration-based standards based on detection limits for hexachlorobutadiene (using analysis of total constituent concentrations) are being proposed today for the U128 and U129.

Lindane is the most common isomer of hexachlorocyclohexane (BHC). Typical commercial mixtures of Lindane were manufactured such that three other isomers were present in reasonably high concentrations: alpha-, beta-, and delta-BHC. Analytical results for hexachlorocyclohexane are often reported for all four of these isomers (which are also Priority Pollutants). Accordingly, the Agency is today proposing concentration-based standards for all four isomers for wastes identified as U129. As with the other characteristic pesticide D wastes, the standard for D013 (Characteristic for Lindane) is being proposed as two sets of concentration-based standards. One set of standards is based on the characteristic levels and the other set of standards were developed from incineration treatment data.

#### BDAT TREATMENT STANDARDS FOR K032

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Hexachlorocyclopentadiene .....	2.0
Chlordane .....	0.13
Heptachlor .....	0.066
Heptachlor epoxide .....	0.066

#### BDAT TREATMENT STANDARDS FOR K032

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Hexachlorocyclopentadiene .....	0.047
Chlordane .....	0.00039
Heptachlor .....	0.00022
Heptachlor epoxide .....	0.00022

#### BDAT TREATMENT STANDARDS FOR K033

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Hexachlorocyclopentadiene .....	2.0

#### BDAT TREATMENT STANDARDS FOR K033

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Hexachlorocyclopentadiene .....	0.047

#### BDAT TREATMENT STANDARDS FOR K034

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Hexachlorocyclopentadiene .....	2.0

#### BDAT TREATMENT STANDARDS FOR K034

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Hexachlorocyclopentadiene .....	0.047

#### BDAT TREATMENT STANDARDS FOR K041

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Toxaphene .....	0.13

#### BDAT TREATMENT STANDARDS FOR K041

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Toxaphene .....	0.00039

#### BDAT TREATMENT STANDARDS FOR K042

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
1,2,4,5-Tetrachlorobenzene .....	4.4
o-Dichlorobenzene .....	4.4
p-Dichlorobenzene .....	4.4
Pentachlorobenzene .....	4.4
1,2,4-Trichlorobenzene .....	4.4

#### BDAT TREATMENT STANDARDS FOR K042

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
1,2,4,5-Tetrachlorobenzene .....	0.092
o-Dichlorobenzene .....	0.092
p-Dichlorobenzene .....	0.092
Pentachlorobenzene .....	0.092
1,2,4-Trichlorobenzene .....	0.092

#### BDAT TREATMENT STANDARDS FOR K085

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzene .....	4.4
Chlorobenzene .....	4.4
o-Dichlorobenzene .....	4.4
m-Dichlorobenzene .....	4.4
p-Dichlorobenzene .....	4.4
1,2,4-Trichlorobenzene .....	4.4
1,2,4,5-Tetrachlorobenzene .....	4.4
Pentachlorobenzene .....	4.4
Hexachlorobenzene .....	4.4
Aroclor 1016 .....	0.13
Aroclor 1221 .....	0.13
Aroclor 1232 .....	0.13
Aroclor 1242 .....	0.13
Aroclor 1248 .....	0.13
Aroclor 1254 .....	0.13
Aroclor 1260 .....	0.13



## BDAT TREATMENT STANDARDS FOR K085

## [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Benzene.....	0.092
Chlorobenzene.....	0.092
o-Dichlorobenzene.....	0.092
m-Dichlorobenzene.....	0.092
p-Dichlorobenzene.....	0.092
1,2,4-Trichlorobenzene.....	0.092
1,2,4,5-Tetrachlorobenzene.....	0.092
Pentachlorobenzene.....	0.092
Hexachlorobenzene.....	0.092
Aroclor 1016.....	0.00036
Aroclor 1221.....	0.00036
Aroclor 1232.....	0.00036
Aroclor 1242.....	0.00036
Aroclor 1248.....	0.00036
Aroclor 1254.....	0.00036
Aroclor 1260.....	0.00036

## BDAT TREATMENT STANDARDS FOR K097

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Hexachlorocyclopentadiene.....	2.0
Chlordane.....	0.13
Heptachlor.....	0.066
Heptachlor epoxide.....	0.066

## BDAT TREATMENT STANDARDS FOR K097

## [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Hexachlorocyclopentadiene.....	0.047
Chlordane.....	0.00039
Heptachlor.....	0.00022
Heptachlor epoxide.....	0.00022

## BDAT TREATMENT STANDARDS FOR K098

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Toxaphene.....	0.13

## BDAT TREATMENT STANDARDS FOR K098

## [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Toxaphene.....	0.00039

## BDAT TREATMENT STANDARDS FOR K105

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzene.....	4.4
Chlorobenzene.....	4.4
o-Dichlorobenzene.....	4.4
p-Dichlorobenzene.....	4.4
2,4,5-Trichlorophenol.....	4.4
2,4,6-Trichlorophenol.....	4.4
2-Chlorophenol.....	4.4
Phenol.....	4.4

## BDAT TREATMENT STANDARDS FOR K105

## [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Benzene.....	0.092
Chlorobenzene.....	0.092
o-Dichlorobenzene.....	0.092
p-Dichlorobenzene.....	0.092
2,4,5-Trichlorophenol.....	0.092
2,4,6-Trichlorophenol.....	0.092
2-Chlorophenol.....	0.092
Phenol.....	0.092

## BDAT TREATMENT STANDARDS FOR P004, P037, P050, P051, P059, P060, P123, U036, U037, U038, U060, U061, U070, U071, U072, U127, U128, U129, U130, U132, U142, U183, U185, U207, U240, AND U247

## [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
P004	Aldrin.....	0.066
P037	Dieldrin.....	0.13
P050	Endosulfan I.....	0.066
P050	Endosulfan II.....	0.13
P050	Endosulfan sulfate.....	0.13
P051	Endrin.....	0.13
P051	Endrin aldehyde.....	0.13
P059	Heptachlor.....	0.066
P059	Heptachlor epoxide.....	0.066
P060	Isodrin.....	0.010
P123	Toxaphene.....	1.3

## BDAT TREATMENT STANDARDS FOR P004, P037, P050, P051, P059, P060, P123, U036, U037, U038, U060, U061, U070, U071, U072, U127, U128, U129, U130, U132, U142, U183, U185, U207, U240, AND U247—Continued

## [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U036	Chlordane.....	0.13
U037	Chlorobenzene.....	5.7
U038	Chlorobenzilate.....	6.6
U060	o,p'-DDD.....	0.087
U060	p,p'-DDD.....	0.087
U061	o,p'-DDT.....	0.087
U061	p,p'-DDT.....	0.087
U061	o,p'-DDD.....	0.087
U061	p,p'-DDD.....	0.087
U061	o,p'-DDE.....	0.087
U061	p,p'-DDE.....	0.087
U070	o-Dichlorobenzene.....	6.2
U071	m-Dichlorobenzene.....	6.2
U072	p-Dichlorobenzene.....	6.2
U127	Hexachlorobenzene.....	37
U128	Hexachlorobutadiene.....	28
U129	alpha-BHC.....	0.066
U129	beta-BHC.....	0.066
U129	delta-BHC.....	0.066
U129	gamma-BHC (Lindane).....	0.066
U130	Hexachlorocyclopentadiene.....	4.8
U132	Hexachlorophene.....	1.1
U142	Kepone.....	0.043
U183	Pentachlorobenzene.....	37
U185	Pentachloronitrobenzene.....	4.8
U207	1,2,4,5-Tetrachlorobenzene.....	19
U240	2,4-D.....	10
U247	Methoxychlor.....	0.18

## BDAT TREATMENT STANDARDS FOR P004, P037, P050, P051, P059, P060, P123, U036, U037, U038, U060, U061, U070, U071, U072, U127, U128, U129, U130, U132, U142, U183, U185, U207, U240, AND U247

## [Wastewaters]\*

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
P004	Aldrin.....	0.00024
P037	Dieldrin.....	0.00052
P050	Endosulfan I.....	0.00024
P050	Endosulfan II.....	0.00052
P050	Endosulfan sulfate.....	0.00052
P051	Endrin.....	0.00052
P051	Endrin aldehyde.....	0.00052
P059	Heptachlor.....	0.00022
P059	Heptachlor epoxide.....	0.00024
P060	Isodrin.....	0.00020
P123	Toxaphene.....	0.014
U036	Chlordane.....	0.00044
U037	Chlorobenzene.....	0.014
U038	Chlorobenzilate.....	0.292
U060	o,p'-DDD.....	0.00036
U060	p,p'-DDD.....	0.00036
U061	o,p'-DDT.....	0.00036
U061	p,p'-DDT.....	0.00036
U061	o,p'-DDD.....	0.00036



**BDAT TREATMENT STANDARDS FOR P004, P037, P050, P051, P059, P060, P123, U036, U037, U038, U060, U061, U070, U071, U072, U127, U128, U129, U130, U132, U142, U183, U185, U207, U240, AND U247—Continued**

**[Wastewaters]\***

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U061	p,p'-DDD.....	0.00036
U061	o,p'-DDE.....	0.00036
U061	p,p'-DDE.....	0.00036
U070	o-Dichlorobenzene.....	0.058
U071	m-Dichlorobenzene.....	0.072
U072	p-Dichlorobenzene.....	0.058
U127	Hexachlorobenzene.....	0.055
U128	Hexachlorobutadiene.....	0.031
U129	alpha-BHC.....	0.00024
U129	beta-BHC.....	0.00024
U129	delta-BHC.....	0.00024
U129	gamma-BHC (Lindane).....	0.00024
U130	Hexachlorocyclopentadiene.....	0.096
U132	Hexachlorophene.....	58
U142	Kepone.....	0.0011
U183	Pentachlorobenzene.....	0.096
U185	Pentachloronitrobenzene.....	0.096
U207	1,2,4,5-Tetrachlorobenzene.....	0.023
U240	2,4-D.....	0.013
U247	Methoxychlor.....	0.00036

\*Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6)(b).

**BDAT TREATMENT STANDARDS FOR D012, D013, D014, D015, D016, AND D017 BASED ON TREATMENT**

**[Nonwastewaters]**

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
D012	Endrin.....	0.13
D013	Lindane.....	0.066
D014	Methoxychlor.....	0.18
D015	Toxaphene.....	1.3
D016	2,4-D.....	10
D017	2,4,5-TP.....	2.8

**BDAT TREATMENT STANDARDS FOR D012, D013, D014, D015, D016, AND D017 BASED ON TREATMENT**

**[Wastewaters]**

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
D012	Endrin.....	0.00052
D013	Lindane.....	0.00024
D014	Methoxychlor.....	0.00036

**BDAT TREATMENT STANDARDS FOR D012, D013, D014, D015, D016, AND D017 BASED ON TREATMENT—Continued**

**[Wastewaters]**

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
D015	Toxaphene.....	0.014
D016	2,4-D.....	0.013
D017	2,4,5-TP.....	2.5

**BDAT TREATMENT STANDARDS FOR U240—SALTS AND ESTERS OF 2,4-D**

**[Nonwastewaters]**

**Incineration as a method of treatment**

**BDAT TREATMENT STANDARDS FOR U240—SALTS AND ESTERS OF 2,4-D**

**[Wastewaters]**

Wet air oxidation or chemical oxidation, followed by carbon adsorption; or incineration as methods of treatment

**d. Halogenated Phenolics.**

U039—p-Chloro-m-cresol  
U048—2-Chlorophenol  
U081—2,4-Dichlorophenol  
U082—2,6-Dichlorophenol

EPA has grouped these four U wastes together because all of the chemicals represented by these waste codes are mono- and di-substituted phenols. These chemicals consist of a phenol (a benzene with a hydroxyl group attached) substituted with one or more chlorine atoms and/or a methyl group (U039) attached to the benzene ring.

The Agency is proposing concentration-based standards for these halogenated phenolics based on incineration treatment performance data for 2,4- and 2,6-dichlorophenol. These data were directly used to develop treatment standards for U081 and U082. Treatment standards for U039 and U048 were developed by examining the detection limit data for these constituents from the fourteen incineration treatment tests. More information on these data can be found in the background document for these wastes.

The treatment standards for wastewater forms of the U wastes

presented in the tables following this section, have been calculated based primarily on the detection limits of these constituents in scrubber waters from incineration of 2,4- and 2,6-dichlorophenol nonwastewaters. However, additional data are available for the treatment of these constituents in wastewaters and alternative standards based on these data are presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. (See previous discussions on these data and alternative standards in section III.A.1.h.(6.) and III.A.2.a.(3.)).

**BDAT TREATMENT STANDARDS FOR U039, U048, U081, AND U082**

**[Nonwastewaters]**

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U039	p-Chloro-m-cresol.....	14
U048	2-Chlorophenol.....	5.7
U081	2,4-Dichlorophenol.....	14
U082	2,6-Dichlorophenol.....	14

**BDAT TREATMENT STANDARDS FOR U039, U048, U081, AND U082**

**[Wastewaters]<sup>1</sup>**

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U039	p-Chloro-m-cresol.....	0.062
U048	2-Chlorophenol.....	0.056
U081	2,4-Dichlorophenol.....	0.052
U082	2,6-Dichlorophenol.....	0.018

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6)(b).

**e. Brominated Organics.**

P017—Bromoacetone  
U129—Methyl Bromide  
U030—4-Bromophenyl phenyl ether  
U066—1,2-Dibromo-3-chloropropane  
U067—Ethylene dibromide (EDB)  
U068—Dibromomethane  
U225—Bromoform

The chemicals represented by these six U wastes and one P waste are all hydrocarbons or oxygenated hydrocarbons that contain the halogen, bromine. The presence of bromine in the structure complicates the evaluation of incineration for these wastes: The primary complication is the release of significant quantities of molecular



bromine ( $\text{Br}_2$ ) from the incineration chambers. Thus, these seven wastes have been grouped together and identified as the brominated organics treatability group.

While cyanogen bromide (U246) is also an organic chemical containing bromine, it is not grouped with these other brominated organics due to its instability in water under alkaline conditions. It breaks down relatively quickly into soluble bromide and soluble cyanide. Consequently, the soluble cyanide must then be treated and thus, the Agency has grouped U246 with the cyanide wastes rather than with these brominated organics. Standards for U246 are proposed in section III.A.6.a.(4) of today's notice.

EPA is proposing concentration-based standards for the six brominated organic compounds amenable to quantification in waste treatment residuals, namely U029, U030, U066, U067, U068 and U225. The methodology used to develop these standards differs from that used for other organic U and P wastes. Incineration data from an Office of Toxic Substances burn of ethylene dibromide included analysis of ethylene dibromide in the untreated waste as well as the ash and scrubber water treatment residuals, but did not include analysis for any of the other brominated organics. EPA used these data to develop the proposed treatment standards for U067 (EDB) wastes. At the same time, the Agency is proposing to directly transfer these standards to U029, U030, U066, U068 and U225 wastes.

Bromoacetone (P017) is relatively unstable in water and therefore cannot be reliably analyzed in wastewaters or other residues where contact with water might be expected. Based on this relative instability of bromoacetone, the resultant difficulty in analyzing treatment residues for bromoacetone, and the demonstration of incinerability of ethylene dibromide (which is more difficult to incinerate than bromoacetone), the Agency is proposing to establish "Incineration as a Method of Treatment" as a treatment standard for P017 nonwastewaters.

During the EPA-sponsored rotary kiln incineration of the ethylene dibromide wastes, the Agency determined that certain operating conditions were required in order to prevent the release of toxic bromine gas. In order to oxidize the bromine released in the organobromine compound combustion process to soluble bromide which can be removed effectively with an air pollution control device such as a scrubber, sulfur was added to modify flame stoichiometry to form soluble bromide

rather than molecular bromine gas. These specific conditions are outlined in the background document for these wastes.

Federal regulations currently do not limit the amount of bromine emitted to the air. The Agency is specifically soliciting comment and data on whether these particular incinerator operating conditions can or should be specified as part of the incineration requirements for these wastes. The Agency recognizes that different incinerators have different designs, and that the conditions identified in the test burn may not be reasonably extrapolated to other incinerators.

As an alternative to specifying these conditions, the Agency is also considering establishing a maximum bromide level in the feed to the incinerators for these seven brominated organic wastes and thereby establish a blending requirement. However, the Agency has not identified a maximum level for bromide and thus has not determined the resultant blending requirements for these seven brominated organics. Another alternative to achieve the same results may be to establish an overall maximum loading of the concentrated brominated organics in the incinerator feed stream.

The Agency is therefore soliciting comment and data that would assist the Agency in determining the viability of these alternative standards for these wastes. Specifically, the Agency solicits supporting evidence on concentrations of bromine in waste feeds that have been successfully incinerated including substantiation that emissions of bromine gas do not pose significant risk to human health and the environment. This information should include specific design and operating conditions established to prevent these emissions and/or specific established restrictions (either regulatory or company policy) on the concentrations of total bromine in waste feeds. Prospective commenters are referred to section III.A.1.i. for explanation of the special procedures that the Agency intends to utilize to provide additional rapid notice and comment on any new data and information received prior to the closure of the comment period and should identify their interest in receiving notice on data for brominated organics specifically as III.A.2.e.

The Agency is currently investigating recent information suggesting that concentrated brominated organics can be processed through a specific thermal unit designed to break off the bromine for purposes of recovery of bromine. Sufficient details of this process were not available in time to describe it in

this proposal. While the Agency may not be able to identify this process as BDAT in time for promulgation of the final rule, it is not precluded from establishing this as BDAT sometime in the future. Finally, the Agency reiterates that in-plant recycling preceding disposal is nowhere prohibited under RCRA.

The treatment standards for wastewater forms of these U wastes presented in the tables following this section, have been calculated based on the detection limits of these constituents in scrubber waters from incineration of the ethylenedibromide wastes. However, additional are available for the treatment of some of these constituents in wastewaters (see previous discussion in section III.A.2.a.(3.) on the proposed promulgation of standards based on these additional data) and will probably be used for the promulgation of the final standards.

While the Agency currently lacks data indicating the treatability of bromoacetone (P017) in water, its relative instability in water supports the inference that it should easily be destroyed with any chemical oxidant and most probably at ambient temperature and air pressure. Since wet air oxidation is typically operated at relatively high temperatures and pressures, the Agency believes that wet air oxidation should provide a more efficient oxidation than simple chemical oxidation. In order to ensure complete destruction, the Agency is therefore proposing that wet air oxidation represents BDAT for P017 wastewaters. However, because bromoacetone is relatively unstable in water, the Agency is also proposing chemical oxidation as an alternative method of treatment.

The Agency also believes that incineration, while not always practical for wastewaters, will provide an efficient destruction of P017 wastewaters. Since the Agency does not want to preclude the use of incineration for P017 wastewaters, it is also being proposed as an alternative treatment technology.

In a similar manner, while the Agency currently lacks data on the biodegradability of bromoacetone in wastewaters, biodegradation typically results in oxidation of organics. Again, due to the instability of this compound in water, the Agency believes that biodegradation can provide effective removal of P017 from wastewaters. EPA thus is also proposing biodegradation as an alternative treatment method. Since the Agency must specify treatment for P017 wastewaters and currently has no data or means of determining which of



the wastewater treatment technologies can provide the most effective treatment and since the technologies can theoretically provide efficient treatment for this relatively unstable compound, the Agency is proposing all four treatment technologies as BDAT.

#### BDAT TREATMENT STANDARDS FOR U029, U030, U066, U067, U068, U225

##### [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U029	Methyl Bromide.....	15
U030	4-Bromophenyl phenyl ether..	15
U066	1,2-Dibromo-3-chloropropane.....	15
U067	Ethylene dibromide (EDB).....	15
U068	Dibromomethane.....	15
U225	Bromoform.....	15

#### BDAT TREATMENT STANDARDS FOR U029, U030, U066, U067, U068, U225

##### [Wastewaters]<sup>1</sup>

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U029	Methyl Bromide.....	16
U030	4-Bromophenyl phenyl ether..	16
U066	1,2-Dibromo-3-chloropropane.....	16
U067	Ethylene dibromide (EDB).....	16
U068	Dibromoethane.....	16
U225	Bromoform.....	16

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6)(b).

#### BDAT TREATMENT STANDARDS FOR P017

##### [Nonwastewaters]

Incineration as a method of treatment

#### BDAT TREATMENT STANDARDS FOR P017

##### [Wastewaters]

Wet air oxidation; chemical oxidation; biodegradation; or incineration as a method of treatment

*f. Miscellaneous Halogenated Organics.* EPA has grouped all of the remaining halogenated organics (i.e.,

twenty-six U wastes and ten P wastes) together into a general category identified as miscellaneous halogenated organics. These U and P wastes represent a wide range of chemicals produced in a variety of individual processes. In general, these miscellaneous halogenated organics can be further distinguished by similarities in structure as were the previously mentioned halogenated organic treatability groups. To facilitate developing appropriate treatability standards, EPA thus divided this general category into seven subcategories: 1) chlorinated diphenyls; 2) chlorinated polynuclear aromatics; 3) chlorinated amines, amides, and nitriles; 4) chlorinated methylbenzenes; 5) halogenated aliphatics; 6) halogenated aldehydes, ethers and esters; and 7) halogenated organo-sulfur compounds.

EPA examined data from a total of fourteen test burns that were performed during the course of determining BDAT standards for First Third and Second Third wastes plus data generated in a rotary kiln incinerator test burn EPA performed in June, 1989. (See section III.A.1.h.(6.) of today's preamble for a more complete discussion of this test burn.) These data include analysis of untreated wastes and all residues, including ash and scrubber water, for virtually all the compounds which the BDAT program regulates by means of concentration-based standards (the "BDAT List" compounds) including the miscellaneous halogenated compounds in this subcategory. However, for most of these compounds the only data that were available were detection limits.

In today's notice, EPA is proposing concentration-based standards for fourteen of these thirty-six miscellaneous halogenated organic U and P nonwastewaters based on a transfer from other "surrogate" halogenated constituents that were determined to be similar in structure to the compounds within each subcategory of miscellaneous halogenated organics. EPA believes that nonwastewater forms of all thirty-six miscellaneous halogenated U and P compounds can be destroyed by incineration to detection limits. However, the Agency does not have specific data on the direct incineration of the majority of these miscellaneous halogenated U and P wastes or their corresponding constituents.

The treatment standards for wastewater forms of these U and P miscellaneous halogenated organics presented in the tables following this section, have been calculated based on the detection limits of these constituents

or surrogate halogenated organics in scrubber waters from incineration. However, additional data are available for the treatment of these constituents in wastewaters and alternative standards based on these data are presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. (See previous discussions on these data and alternative standards in section III.A.1.h.(6.) and III.A.2.a.(3).)

For twenty-two of these miscellaneous halogenated organics there are analytical complications that preclude the establishment of concentration-based treatment standards. (See complete discussion of analytical complications for U and P wastes in section III.A.1.h.(2.) of today's preamble.) In addition, the quality of the data and resultant concentration-based standard for U017 (benzal chloride) is being re-examined to determine whether the concentration-based standard is valid. As a result EPA is specifying "Incineration as a Method of Treatment" for nonwastewater forms of twenty-three of these miscellaneous halogenated organic wastes and "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment" for the corresponding wastewater forms. (See discussion on selecting these technologies as BDAT for halogenated organics in section III.A.2.a. (2.) and (4.) above.) The specified technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar halogenated organic U and P waste codes. The Agency reminds commenters that there are very few (if any) of these twenty-three wastes that are currently being generated as originally listed and that in practice, the standards will probably only be necessary for residues from previous disposal. The Agency believes that these residues should be less difficult to treat than the original waste as generated.

(1) *Chlorinated Diphenyls.* There are two miscellaneous halogenated organics that are classified as chlorinated diphenyls; 3,3'-dichlorobenzidine (U073) and 4,4'-methylene-bis-(2-chloroaniline) (U158). Diphenyls are compounds consisting of two benzene rings attached to a single, common carbon atom. (Diphenyls are not to be confused with biphenyls which have the structure of two benzene rings attached directly to each other.) The chlorinated diphenyls represented by these waste codes differ from those previously mentioned in the halogenated pesticide category (e.g., DDD, DDT, and Methoxychlor) because these diphenyls contain fewer chlorine



atoms and also include methylene and amine functional groups.

DDD, DDT, and Methoxychlor are believed to be more difficult to destroy than the U073 and U158 because the chlorines at the carbon bridge in DDD, DDT, and Methoxychlor are believed to stabilize the aromatic ring. The Agency has data on the incineration of wastes containing Methoxychlor and another structurally similar halogenated organic known as Pronamide (U192) that were used in developing the standards for U073 and U158 wastes. The Agency believes that Pronamide, a halogenated organo-nitrogen compound (3,5-dichloro N-(1,1-dimethyl-2-propynyl)-benzamide), is more difficult to incinerate than these two chlorinated diphenyls.

Both of the chemicals represented by U073 and U158 are amenable to quantification in treatment residuals by verified SW-846 methods. EPA believes these can both be incinerated to detection limits in ash and scrubber water based on data indicating that DDD, DDT and methoxychlor can be incinerated to detection levels. Therefore EPA is proposing concentration-based standards for U073 and U158 wastewaters and nonwastewaters.

(2) *Chlorinated Polynuclear Aromatics.* Chloronaphazine (U026) and 2-chloronaphthalene (U047) are both classified as chlorinated polynuclear aromatic hydrocarbons. This means that both chemicals contain fused aromatic rings (i.e., polynuclear aromatics) with one having only one attached chlorine while the other has an attached chlorinated amine functional group. The Agency believes that both U026 and U047 can be incinerated to detection limits in ash and scrubber water because of their similarity to Pronamide. The Agency believes that Pronamide, a halogenated organo-nitrogen compound (3,5-dichloro N-(1,1-dimethyl-2-propynyl)-benzamide), is more difficult to incinerate than these chlorinated polynuclear aromatics. Therefore, EPA is proposing treatment standards for U026 and U047 based on incineration as BDAT.

Only U047 is amenable to quantification in treatment residuals by verified SW-846 methods. While chloronaphazine (U026) is amenable to analysis by HPLC, EPA currently rejects HPLC methods as the sole means of establishing treatment standards for reasons discussed in III.A.1.h.(2.). EPA is therefore proposing concentration-based standards for all forms of U047, "Incineration as a Method of Treatment" for nonwastewater forms of U026, and "Wet Air Oxidation or Chemical

Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment". (See discussion on selecting these technologies as BDAT for all halogenated organics in section III.A.2.a.(4.) and in the introductory discussion for miscellaneous halogenated organics above.)

(3) *Chlorinated Amides, Amines, and Nitriles.*

P024—p-Chloroaniline  
P027—3-Chloropropionitrile  
P057—2-Fluoroacetamide  
U049—4-Chloro-o-toluidine hydrochloride  
U097—Dimethylcarbomyl chloride  
U192—Pronamide  
U222—o-Toluidine hydrochloride

These seven miscellaneous halogenated organics were grouped together because they contain an amide, amine, or nitrile group attached to a relatively simple hydrocarbon structure. Only p-chloroaniline (P024) and Pronamide (U192) are amenable to quantification in treatment residuals by verified SW-846 methods. EPA has data on the incineration of Pronamide that indicate Pronamide can be incinerated to detection levels in the ash and the scrubber water. Thus, concentration-based standards for U192 nonwastewaters are proposed in today's notice based directly on these data. The Agency believes p-chloroaniline (P024) resembles Pronamide closely enough that incineration will also destroy p-chloroaniline to detection limits, and is therefore proposing concentration-based standards for P024 based on a transfer of these data.

While 2-fluoroacetamide (P057) is amenable to analysis by HPLC, EPA currently rejects HPLC methods as the sole means of establishing treatment standards for reasons discussed in III.A.1.h.(2.). In addition, no analytical methods have been verified for 4-chloro-o-toluidine hydrochloride (U049), dimethylcarbomyl chloride (U097), or 3-Chloropropionitrile (P027). Information also indicates that o-Toluidine hydrochloride (U222) is unstable in water. EPA believes incineration is effective for P027, P057, U049, U097 and U222, because three are halogenated aliphatics and expected to be less stable than Pronamide (an aromatic molecule), and the other two are polar aromatics, similar in stability to Pronamide. Thus EPA is proposing a standard of "Incineration as a Method of Treatment" for P027, P057, U049, U097 and U222, based on the incineration data for Pronamide.

For the wastewater forms of P027, P057, U049, U097 and U222, EPA is proposing a treatment standard of "Wet

Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment". (See discussion on selecting these technologies as BDAT for halogenated organics in section III.A.2.a.(4.) above.) These wastewater technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar halogenated U and P waste codes.

(4) *Chlorinated Methylbenzenes.* Benzyl chloride (P028) and benzal chloride (U017) have been grouped together because they both consist of a toluene moiety with chlorines attached to the methyl group. In section II.A.6.(d.) of today's notice EPA is proposing concentration-based standards for benzal chloride in K015 wastes (still bottoms from the distillation of benzyl chloride) based on a transfer of K019 incineration data for p-dichlorobenzene. Wastewater standards for benzal chloride in K015 wastewaters were promulgated with the First Third Wastes. Therefore, the Agency is proposing these treatment standards for U017 wastewaters and nonwastewaters based on a similar transfer.

Benzal chloride (U017) is relatively unstable in water and the Agency is concerned that the analysis for this compound in treatment residuals may not be reproducible. As an alternative to the concentration-based standard for U017 nonwastewaters, the Agency is also proposing "Incineration as a Method of Treatment" as BDAT. Commenters on this approach should submit QA/QC data that verify their particular position of this matter. The Agency points out that it currently has no QA/QC data that support the reproducibility of the benzal chloride analysis for treatment residues, and that the Agency prefers to establish a method of treatment rather than a concentration-based standard for U017 wastewaters and nonwastewaters.

In a similar manner, benzyl chloride (P028) is unstable in water. The Agency is thus proposing a standard of "Incineration as a Method of Treatment" for P028 nonwastewaters, based on the incineration data that indicates p-dichlorobenzene and Pronamide can be destroyed to detection levels in incinerator ash. Both of these chemicals are more stable than P028.

For the wastewater forms of U017 and P028, EPA is also proposing a treatment standard of "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment". (See discussion on selecting these technologies as BDAT for halogenated organics in section



III.A.2.a.(4.) above.) These wastewater technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar U and P waste codes.

(5) *Halogenated Aliphatics.*

U043—Vinyl chloride  
U045—Chloromethane  
U075—Dichlorodifluoromethane  
U121—Fluorotrichloromethane  
U138—Iodomethane

This subcategory of miscellaneous halogenated organics consists of five chemicals that have been grouped together because they have one or two carbon atoms with at least one chlorine, fluorine, or iodine attached. EPA believes that 1,1,1-trichloroethylene and carbon tetrachloride, which also contain one or two carbons with three or four chlorines attached, represent the degree of difficulty anticipated in incinerating the simple halogenated aliphatics belonging to this subgroup. While the carbon-fluoride bonds in U075 and U121 are known to be much stronger than the carbon-chlorine bond in carbon tetrachloride molecule, EPA believes that the overall degree of difficulty of incineration is similar enough to justify a transfer of these incineration data for the purposes of developing treatment standards for land disposal of these wastes.

Thus, EPA concludes incineration will reduce these wastes to detection limits in ash and scrubber water and is proposing concentration-based standards accordingly. Since all five of these compounds are amenable to quantification in treatment residuals by verified SW-846 methods, EPA is proposing concentration-based standards for wastewater and nonwastewater forms of U043, U045, U075, U121 and U138.

(6) *Halogenated Aldehydes, Ethers and Esters.*

P016—Bis-chloromethyl ether  
P023—Chloroacetaldehyde  
P058—Fluoroacetic acid, sodium salt  
P095—Phosgene  
U006—Acetyl Chloride  
U024—Bis 2-chloroethoxymethane  
U025—Dichloroethyl ether  
U027—Bis-2-chloroisopropyl ether  
U033—Carbonyl fluoride  
U034—Trichloroacetaldehyde  
U041—n-Chloro-2,3-epoxypropane  
U042—2-Chloroethyl vinyl ether  
U046—Chloromethyl methyl ether  
U156—Methyl chlorocarbonate

This subcategory of miscellaneous halogenated organics consists of fourteen chemicals grouped together

because they are relatively simple oxygenated hydrocarbons with various degrees of halogenation. The oxygenated hydrocarbons include ethers, esters, and aldehydes.

Of these fourteen chemicals, only bis 2-chloroethoxymethane (U024), dichloroethyl ether (U025), bis-2-chloroisopropyl ether (U027), and 2-chloroethyl vinyl ether (U042) are amenable to quantification in treatment residuals by verified SW-846 methods. However, EPA's data on the detection limits of 2-chloroethyl vinyl ether (U042) in incinerator ash are so variable that the resultant calculated treatment standard results in a standard that is in the low percent range. Since the data show that incineration can achieve detection limits for a variety of wastes, and since the resultant high treatment standard could potentially allow a waste with high concentrations of U042 to go untreated; the Agency has chosen to propose "Incineration as a Method of Treatment" as a treatment standard for U042 nonwastewaters. The Agency believes that this will ensure these wastes will be treated to levels that represent BDAT. For U024, U025, and U027 (which are also amenable to quantification) EPA is proposing concentration-based standards based on the ability of incineration technologies to destroy Pronamide and chlorobenzene to detection limits in ash and scrubber water. The Agency believes that Pronamide (a halogenated organo-nitrogen compound also identified as 3,5-dichloro N-(1,1-dimethyl-2-propynyl)-benzamide) and chlorobenzene are more difficult to incinerate than these halogenateds because both have more complex structures and stronger bonding than U024, U025, and U027 wastes.

There are currently no verified SW-846 methods for the constituents represented by P058, U034, or U156. In addition, constituents represented by P016, P023, P095, U006, U033, U041, and U046 are all unstable in water. As a result, EPA is proposing "Incineration as a Method of Treatment" as treatment standards for nonwastewater forms of P016, P023, P058, P095, U006, U033, U034, U041, U042, U046, and U156. Based on the simplicity of structure, EPA believes all of these compounds are easier to incinerate than chlorobenzene and/or Pronamide. This is particularly substantiated by the aforementioned relative instability of seven of these U and P wastes.

For the wastewater forms of P016, P023, P058, P095, U006, U033, U034,

U041, U042, U046, and U156, EPA is proposing a treatment standard of "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment". (See discussion on selecting these technologies as BDAT for halogenated organics in section III.A.2.a.(4.) above.) These wastewater technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar U and P waste codes.

(7) *Chlorinated Organo-Sulfur.*

P026—1-(o-Chlorophenyl) thiourea  
P118—Trichloromethanethiol  
U020—Benzenesulfonyl chloride  
U062—Diallate

These four miscellaneous halogenated organics have been grouped together because they are chlorinated organo-sulfur chemicals. The majority of the organo-sulfur compounds are discussed in section III.A.3. of today's preamble. Note: The Agency is soliciting comment on the potential need for control of sulfur dioxide emissions from the incineration of these wastes.

The Agency is proposing a standard of "Incineration as a Method of Treatment" in nonwastewaters for all four of these wastes. While P026 and U062 are amenable to analysis by HPLC, EPA currently rejects HPLC methods as the sole means of establishing treatment standards for reasons discussed in "Analytical Considerations". In addition, no verified SW-846 analytical methods are available for the constituents represented by P118 or U020. The Agency bases this choice of incineration as a method on the incineration data that indicates 1,1,1-trichloroethane as well as tetrachloroethene, Pronamide, and chlorobenzenes can all be destroyed to detection levels in incinerator ash and scrubber water.

For the wastewater forms of P026, P118, U020, and U052, EPA is proposing a treatment standard of "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; or Incineration as Methods of Treatment". (See discussion on selecting these technologies as BDAT for halogenated organics in section III.A.2.a.(4.) above.) These wastewater technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar U and P waste codes.



## BDAT TREATMENT STANDARDS FOR P024, U017, U024, U025, U027, U043, U045, U047, U073, U075, U121, U138, U158, AND U192

## [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
P024	p-Chloroaniline.....	16
U017	Benzal chloride.....	6.2
U024	Bis (2-chloroethoxy) methane.....	7.2
U025	Dichloroethyl ether.....	7.2
U027	Bis-2-chloroisopropyl ether.....	7.2
U043	Vinyl chloride.....	0.035
U045	Chloromethane.....	5.6
U047	2-Chloronaphthalene.....	5.6
U073	3,3'-Dichlorobenzidine.....	16
U075	Dichlorodifluoromethane.....	10
U121	Fluorotrichloromethane.....	33
U138	Iodomethane.....	65
U158	4,4-Methylene-bis-(2-chloroaniline).....	29
U192	Pronamide.....	1.5

## BDAT TREATMENT STANDARDS FOR P024, U017, U024, U025, U027, U043, U045, U046, U073, U075, U121, U138, U158, AND U192

[Wastewaters]<sup>1</sup>

Waste code	Regulated constituent	Maximum for single grab sample, total composition (mg/l)
P024	p-Chloroaniline.....	0.28
U017	Benzal chloride.....	0.28
U024	Bis (2-chloroethoxy) methane.....	0.064
U025	Dichloroethyl ether.....	0.013
U027	Bis-2-chloroisopropyl ether.....	0.064
U043	Vinyl chloride.....	0.033
U045	Chloromethane.....	0.023
U047	2-Chloronaphthalene.....	0.073
U073	3,3'-Dichlorobenzidine.....	0.022
U075	Dichlorodifluoromethane.....	0.14
U121	Fluorotrichloromethane.....	0.13
U138	Iodomethane.....	0.23
U158	4,4-Methylene-bis-(2-chloroaniline).....	0.74
U192	Pronamide.....	0.039

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7, as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6.) (b.).

## BDAT TREATMENT STANDARDS FOR P016, P023, P026, P027, P028, P057, P058, P095, P118, U006, U017, U020, U026, U033, U034, U041, U042, U046, U049, U062, U097, U156, AND U222

## [Nonwastewaters]

## Incineration as a Method of Treatment

## BDAT TREATMENT STANDARDS FOR P016, P023, P026, P027, P028, P057, P058, P095, P118, U006, U017, U020, U026, U033, U034, U041, U042, U046, U049, U062, U097, U156, AND U222

## [Wastewaters]

Wet air oxidation or chemical oxidation, followed by carbon adsorption; or incineration as methods of treatment

3. Proposed Treatment Standards for Additional Organic Wastes—*a.*

*Introduction.* In the previous section of today's preamble (III.A.2.), the Agency identified that many of the chemicals represented by the U, P, and K wastes fall under a general category of chemicals known as halogenated organics. The majority of the remaining organic U and P wastes have been grouped together into seven additional subcategories of "nonhalogenated" organic wastes and a discussion of each is presented in this section (III.A.3.) of today's preamble. The seven major subcategories of wastes are based primarily on similarities in the structure of these organic chemicals (i.e., elemental composition and the presence of organic functional groups). These subcategories are also based partially on the industrial use (e.g., the wastes of a pharmaceutical nature) and waste generation patterns of the U and P wastes. These major subcategories include: aromatics and other hydrocarbons, polynuclear aromatic hydrocarbons, phenolics, oxygenated hydrocarbons and heterocyclics, organo-nitrogen compounds, organo-sulfur compounds, and wastes of a pharmaceutical nature.

*(1) Fuel Substitution as an Alternative Treatment Method.* BDAT standards for the nonwastewater forms of these U and P nonhalogenated organics are proposed based primarily on performance data from incineration of similar wastes. Since many of the nonhalogenated chemicals represented by these U and P waste codes generally have reasonably high BTU values (e.g., the aromatics and the polynuclear aromatics) and since U and P wastes are typically off-specification or discarded products, they might be expected to be well suited for fuel substitution purposes. However, despite this fuel value and the fact that these compounds consist primarily of hydrogen and carbon, many of these wastes may be considered unacceptable for fuel substitution due to their relatively high toxicity and acid formation capability (due incineration).

In addition, it appears that there is sufficient incineration capacity to accommodate these wastes, so that use of fuel substitution capacity is not needed to avoid granting a national capacity variance for these wastes. It also appears that only the oxygenated hydrocarbons and heterocyclics (seventeen of the eighty two U and P nonhalogenated wastes) are likely candidates for use as fuel substitutes. The Agency does not believe that fuel substitution is a viable alternative for the majority (sixty five) of the specific U and P waste codes identified in this section.

In today's rule, the Agency is proposing that incineration represents BDAT for all of the nonhalogenated organics presented in this section. Where the Agency is proposing "Incineration as a Method of Treatment" as the nonwastewater treatment standard for a particular organic waste code, it has not included fuel substitution as an alternative except for seventeen of the oxygenated hydrocarbon and heterocyclic wastes. However, where the Agency has proposed concentration-based standards (i.e., sixty one U and P nonhalogenated wastes), thermal destruction in fuel substitution units is not precluded. The Agency points out that all facilities incinerating these wastes must comply with 40 CFR 264 Subpart O or 265 Subpart O.

*(2) Additional Wastewater Treatment Data.* Additional wastewater treatment data primarily from the Agency's Office of Water have been recently analyzed for incorporation into the treatment standards for many of the U and P wastes in this section. These data include the treatment of wastewaters that are not specifically listed as U or P wastewaters, but do contain many of the corresponding U or P constituents. While these data were not available in time to incorporate into this discussion or into the background document for these wastes, these data are being placed in the administrative record for today's notice. Therefore, the Agency is not precluded from using these data in promulgating the standards for these wastes. Further information on these data can be found in section III.A.1.h.(6.).

Alternative standards based on these data are anticipated to be similar to those presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. These standards are presented on a constituent basis and correspond to what may be promulgated for the respective U or P wastewater. Thus, the Agency is proposing these



standards as alternative standards for all U and P wastewaters for which concentration-based standards based on incinerator scrubber waters have been proposed in the following sections.

(3) *Specifying Technologies for Nonhalogenated Wastewaters.* Based on analytical complications previously discussed in section III.A.1.h.(2.), the Agency is also proposing certain methods of treatment as the treatment standards for many of the nonhalogenated U and P wastewaters. In the following sections (III.A.3.b. through h.) of the preamble the Agency identifies eighty two specific nonhalogenated organic U and P wastes for which the Agency is proposing four treatment technologies as alternative BDAT treatment standards: (1) Wet air oxidation followed by carbon adsorption; (2) Chemical oxidation followed by carbon adsorption; (3) Biodegradation followed by carbon adsorption; or (4) Incineration of wastewaters. Since these technologies are known to provide effective treatment for the other nonhalogenated organic constituents within each treatability group (as identified in III.A.3.) that can be analyzed, the Agency is therefore proposing these multiple treatment technologies for all of the eighty two U and P constituents that require specified methods of treatment.

Biodegradation has been specified as an alternative technology for these nonhalogenated organics in wastewaters, because these chemicals are generally thought of as more easily biodegraded than the halogenated organics due to the overall higher toxicity of the halogenated compared to their nonhalogenated counterparts. This is further supported by the fact that there are certain forms of biota that utilize the nitrogen or the sulfur contained in many of these nonhalogenated organics for metabolic purposes and that the hydrogen, carbon, and oxygen contained in the majority of the structures of these chemicals serve as a food source for many forms of the biota.

Carbon adsorption has been specified as part of the treatment train because the eighty two nonhalogenated U and P organics are believed to be adsorbable when present in low concentrations, as might be expected in an effluent from either wet air oxidation, chemical oxidation, or biodegradation. The Agency further recognizes that while difficulties can arise in specifying only one treatment method for these wastewaters (as outlined in greater detail in section III.A.1.h.(7.)), the Agency must develop a treatment

standard for these wastes to avoid the hard hammer and at the same time, somehow justify that these technologies provide significant treatment. None of these technologies have been specifically identified as better than the others by the Agency, because of the lack of data for these constituents (due to the identified analytical complications) or for any surrogate parameters.

#### *b. Aromatics and Other Hydrocarbons*

U019—Benzene  
U055—Cumene (isopropyl benzene)  
U056—Cyclohexane  
U186—1,3-Pentadiene  
U220—Toluene (methyl benzene)  
U239—Xylenes (dimethyl benzenes)

EPA grouped these waste codes together because the primary constituents for which the waste was listed are either aromatic or alicyclic compounds. This group of chemicals, except for cyclohexane (U056) and 1,3-Pentadiene (U186), all contain one benzene ring. Cumene (U055), toluene (U220), and xylenes (U239) consist of a benzene ring with aliphatic side chains. Cyclohexane (U056), a cycloalkane, has been included in this group because of its ability to be converted by catalytic reforming into aromatic hydrocarbons. Conversely, the addition of hydrogen (hydrogenation) to an aromatic compound yields cyclic aliphatic compounds, specifically cyclohexane derivatives, e.g., the hydrogenation of benzene yields pure cyclohexane. 1,3-pentadiene (U186) is a five carbon chain with two conjugated double bonds (i.e., a diene) that provide a certain degree of aromaticity to the chemical, making it somewhat similar to the others in the group. For the purpose of determining BDAT, all of these wastes have been grouped together into one treatability group identified as aromatics and other hydrocarbons. The proposed treatment standards for this waste group are presented expressed either as a concentration-based standard or as a method of treatment.

(1) *Wastes for Which EPA is Proposing Concentration-Based Standards.* In developing the standards for aromatics and other hydrocarbon wastes, the Agency incorporated into its analysis some chemical variability by reviewing data from several incineration test burns conducted by EPA for various F and K wastes. Analysis of these data identified extensive treatment and detection limit data for benzene (U019), toluene (U220), and xylenes (U239) from the test burns of K001, K037, K048, K051, K087, K101, and K102 wastes. These data represent a myriad of different

hazardous waste types generated and treated at several different facilities. The waste characterization data indicates that for these three constituents, concentrations in the different wastes varied from very low levels in some wastes to high levels in others. For example, toluene concentrations in the wastes ranged from 17 ppm in K087 waste to 2,000 ppm in K037 waste.

Concentration-based treatment standards for U019, U220 and U239 wastes are thus proposed based on the analysis of data on the performance of incineration of: (1) K001 (bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol); (2) K037 (wastewater treatment sludges from the production of disulfoton); (3) K048 (dissolved air flotation (DAF) float from the petroleum refining industry); (4) K051 (API separator sludge from the petroleum refining industry); (5) K087 (decanter tank tar sludge from coking operations); (6) K101 (distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds) and (7) K102 (residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds) wastes.

Treatment standards for K001, K037, K048, K051, K087, K101 and K102 wastewaters and nonwastewaters were promulgated in the First Third final rule on August 8, 1988. These standards, measured as concentrations found in the ash and scrubber water, were based on the performance of rotary kiln or fluidized bed incineration.

EPA analyzed for benzene (U019), toluene (U220) and xylenes (U239) in the incineration residues (ash and scrubber water) from these test burns as follows: (1) six data sets for benzene and toluene in K001; (2) six data sets for xylene in K037; (3) six data sets for benzene and toluene in K048 and K051; (4) six data sets for benzene, toluene and xylene in K087; (5) six data sets for toluene in K101 and (6) six data sets for toluene and xylene in K102. In general, data from the test burns showed that the majority of the measured values for the three aromatic constituents were analyzed at concentrations below detection levels in the incineration residues. Detection limits for the ash ranged from 0.005 ppm to 10 ppm. The detection limits for the scrubber water ranged from 0.002 ppm to 0.010 ppm.



The Agency also reviewed performance data on the treatment of toluene and xylenes obtained from a rotary kiln incinerator test burn EPA performed in June, 1989. The feed also included other RCRA hazardous wastes that contained these constituents yielding total concentrations of these constituents at the percent level. (See further discussion of this test burn in section III.A.1.h.(6.) of today's preamble.)

The Agency believes that all of these data represent a sufficient range of concentrations of these aromatic hydrocarbons in the untreated wastes and are thus considered representative of what the Agency would anticipate to find present in the respective U wastes. The Agency has reviewed both characterization and performance data from all seven test burns to develop concentration-based treatment standards for U019, U220, and U239 and has determined, as explained in the background document, that K001 is most appropriate for the transfer to these U wastes.

The Agency is regulating xylenes (U239) by setting a single concentration-based treatment standard which will represent the sum of the concentrations of o-xylene, m-xylene, and p-xylene present in the waste treatment residual. The basis of concentration numbers therefore will be the sum of the areas under all peaks identified as o-xylene, m-xylene or p-xylene in the chromatographic spectrum. The forthcoming first update to the third edition of SW-846 includes Method 8260 (GC/MS for volatile organics using a capillary column) which can quantify the individual isomers of xylene. Nevertheless, the Agency chooses to regulate xylenes as a collective unit, rather than individually, to allow the regulated community to use SW-846 Method 8240 because it is already validated for xylenes, less cumbersome and available in current editions of SW-846. More information on the development of treatment standards can be found in the Background Document for Aromatic Compounds in the RCRA docket.

(2) *Wastes for Which EPA is Proposing a Method of Treatment as BDAT.* The Agency does not believe that concentration-based standards can be established for U055, U056 and U186 wastes at this time. The major problem in establishing concentration-based standards for these wastes is that EPA does not currently have a verified SW-

846 analytical method that can analyze for the concentrations of cumene (U055), cyclohexane (U056), or 1,3-pentadiene (U186) in treatment residues. As a result, a concentration-based treatment standard for these waste codes is apparently not feasible and thus, the Agency is proposing a treatment standard of "Incineration as a Method of Treatment" for U055, U056 and U186 nonwastewaters. For U055, U056 and U186 wastewaters, EPA is proposing "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as a Method of Treatment." These wastewater technologies are appropriate for these constituents and have been demonstrated and/or promulgated for similar U and P waste codes (see preceding discussion in III.A.3.a.(3.)).

#### BDAT TREATMENT STANDARDS FOR U019, U220, AND U239

[Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U019	Benzene.....	36
U220	Toluene.....	28
U239	Xylene(s).....	33

#### BDAT TREATMENT STANDARDS FOR U019, U220, AND U239

[Wastewaters]<sup>1</sup>

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U019	Benzene.....	0.033
U220	Toluene.....	0.028
U239	Xylene(s).....	0.032

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6.)(b.).

#### BDAT TREATMENT STANDARDS FOR U055, U056 AND U186

[Nonwastewaters]

Incineration as a Method of Treatment

#### BDAT TREATMENT STANDARDS FOR U055, U056 AND U186

[Wastewaters]

Wet air oxidation or chemical oxidation followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration as methods of treatment

#### c. Polynuclear Aromatic Hydrocarbons.

U005—2-Acetylaminofluorene  
U016—Benz(c)acridine  
U018—Benz(a)anthracene  
U022—Benzo(a)pyrene  
U050—Chrysene  
U051—Creosote  
U063—Dibenzo(a,h)anthracene  
U064—1,2,7,8-Dibenzopyrene  
U094—7,12-Dimethyl benz(a)anthracene  
U120—Fluoranthene  
U137—Indeno(1,2,3-c,d)pyrene  
U157—3-Methylchloanthrene  
U165—Naphthalene

EPA grouped these thirteen U wastes together because the primary constituents for which the wastes were listed are polynuclear aromatic hydrocarbons. All of these compounds are very similar in chemical composition and structure (i.e., they all consist of multiple fused-ring aromatic hydrocarbons). For purposes of determining BDAT, all of these wastes have been grouped together into one treatability group identified as polynuclear aromatic hydrocarbons.

(1) *Wastes for Which EPA is Proposing Concentration-Based Standards.* In developing the treatment standard for polynuclear aromatic wastes, the Agency incorporated into its analysis some chemical variability by reviewing data from incineration test burns conducted by EPA for various F and K wastes. Analysis of these data identified extensive treatability and detection limit data for many polynuclear aromatic constituents from the test burns of F024, K001, K019, K048, K051, and K087 wastes. These data represent a myriad of different hazardous waste types generated and treated at several different facilities. The characterization data for untreated wastes indicate that concentrations of these polynuclear aromatics varied from very low levels in some wastes to high levels in others. For example, chrysene waste concentrations ranged from 0.41 ppm in F024 to 6500 ppm in K087.

Concentration-based treatment standards for U005, U018, U022, U050, U063, U120, U137, U157, and U165 wastes are thus proposed based on data



on the performance of incineration of: (1) F024 (various wastes from the production of chlorinated aliphatics such as distillation residues, heavy ends, tars, and reactor clean-out wastes); (2) K001 (bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol); (3) K019 (heavy ends from the distillation of ethylene dichloride in ethylene dichloride production); (4) K048 (dissolved air flotation (DAF) float from the petroleum refining industry); (5) K051 (API separator sludge from the petroleum refining industry); and (6) K087 (decanter tank tar sludge from coking operations) nonwastewaters.

Treatment standards for K001, K019, K048, K051, and K087 wastewaters and nonwastewaters were promulgated in the First Third rule on August 8, 1988. Treatment standards for F024 wastes were promulgated in the Second Third rule on June 8, 1989. These standards, measured as concentrations found in the ash and scrubber water, were based on the performance of rotary kiln or fluidized bed incineration.

EPA analyzed for various polynuclear aromatic compounds in the incineration residues (ash and scrubber water) from these test burns as follows: (1) six data sets for benz(a)anthracene, benzo(a)pyrene, chrysene, and indeno(1,2,3-c,d)pyrene in F024; (2) six data sets for benz(a)anthracene, benzo(a)pyrene, chrysene, fluoranthene, and naphthalene in K001; (3) six data sets for naphthalene in K019; (4) six data sets for benz(a)anthracene, chrysene, and naphthalene for K048; (5) six data sets for benz(a)anthracene, chrysene, and naphthalene in K051; and (6) six data sets for benz(a)anthracene, benzo(a)pyrene, chrysene, fluoranthene, indeno(1,2,3-c,d)pyrene and naphthalene in K087. In general, the majority of the measured values for polynuclear aromatics were below detection for the six constituents analyzed.

The Agency has determined that the waste characterization and incineration performance data from F024, K001, K019, K048, K051, and K087 wastes were sufficient to develop concentration-based treatment standards for U005, U018, U022, U050, U063, U064, U120, U137, U157, and U165 wastes. While specific data were not available on all of these polynuclear aromatic chemicals, EPA is proposing concentration-based standards for the remaining wastes based on a transfer of performance data from structurally similar polynuclear aromatics where data do exist. More information on the development of

treatment standards for these wastes can be found in the Background Document for Polynuclear Aromatic Compounds in the RCRA docket.

(2) *Standards for U051 Waste.* Treatment standards for U051 (creosote) wastes are proposed based on the transfer of performance data from incineration of K001 wastes. Treatment standards for K001 wastewaters and nonwastewaters were promulgated in the First Third final rule on August 8, 1988. The standards for organics in K001 wastes were based on the performance of rotary kiln incineration of K001 nonwastewaters. Treatment standards for the leachable metal constituents in K001 nonwastewaters were established based on the performance of stabilization. The metal constituents in K001 wastewaters were based on chemical precipitation.

The Agency is also proposing to revise the concentration-based treatment standards for K001 organics due to a mathematical error that was made in the calculation of the standards. The revised standards are being proposed along with the corrected standards for U051. Additional information on the revised standards can be found in the amendment to the K001 Background Document.

U051 wastes differ from other U wastes in the polynuclear aromatic group in that the waste is not defined by one chemical or constituent, but by a group of chemicals defined by the generic term of "creosote". Creosote is a derivative of coal that contains a wide range of constituents including cresols, phenols, naphthalene, benz(a)anthracene, benzo(a)pyrene, fluoranthene, chrysene, indeno(1,2,3-cd)pyrene and acenaphthalene. The presence of these polynuclear aromatics is the main reason why this waste code has been placed in this treatability group.

The transfer of performance data from K001 waste is particularly appropriate for U051 because data on the incineration of a K001-creosote waste and a K001-pentachlorophenol waste were used in the development of the treatment standards for that waste. Based on the similarities in concentration of the major hazardous organic constituents anticipated in creosote (U051) to those in K001, and the primary use of creosote as a wood preservative (and hence the relationship to K001) the Agency has decided to propose to regulate the same constituents in U051 as were regulated in K001.

Incineration in a rotary kiln will achieve a level of performance that

represents BDAT for the organics in U051. Thus, EPA is proposing concentration-based standards for six organic constituents in U051. These are naphthalene, pentachlorophenol, phenanthrene, pyrene, toluene, and xylenes. Since the performance data for K001 indicate the presence of treatable quantities of lead in the incinerator ash and based on the anticipated similarities of U051 wastes to K001 wastes, EPA is also proposing treatment standards for lead. These standards are based on stabilization as BDAT for U051 nonwastewaters and chemical precipitation as BDAT for U051 wastewaters.

EPA notes, however, that if U051 is simply discarded before it is used, for example because it is off-specification, then it would be unlikely to have all of the same contaminants as K001 wastes. On the other hand, when U051 is spilled at a wood preserving site, then it could contain the same contaminants, in particular pentachlorophenol and lead, as K001 wastes due to the high potential for cross-contamination due to prior use of pentachlorophenol at the site. Since the Agency anticipates that most of the U051 wastes come from spill residues at wood preserving sites, EPA is conservatively proposing standards that include those constituents that are likely to be present in this form of the waste. In situations where a facility never used pentachlorophenol or where the U051 is only anticipated to be generated as an off-spec product (and pentachlorophenol was never used in the production equipment), EPA anticipates that the facility's waste analysis plan could be revised so that only the constituents that are likely to be present in that form of the waste are monitored. (See also the discussion in section III.A.1.f.(3.) on waste analysis plans.)

(3) *Wastes for Which EPA is Proposing a Method of Treatment as BDAT.* The Agency has determined that currently there are no calibration reagents that are routinely available for the measurement of benzo(c)acridine (U016), 1,2,7,8-dimethylbenzo(a)anthracene (U064) and 7,12-dimethylbenzo(a)anthracene in treatment residuals. As a result, a concentration-based standard for these constituents is apparently not feasible. See section III.A.1.h.(2)(b.) of today's preamble for a further discussion of the Agency's approach in such instances. Since 3004(m) allows the Agency to establish either levels or methods of treatment, the Agency is proposing a standard of "Incineration as a Method of Treatment" for U016, U064 and U094 nonwastewaters. For U016, U064, and



U094 wastewaters the Agency is proposing "Wet Air Oxidation or Chemical Oxidation Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as a Methods of Treatment." The Agency believes that these technologies are appropriate for treatment of these constituents and have been demonstrated and/or promulgated for similar U and P waste codes (see preceding discussion in III.A.3.a.(3.)).

#### BDAT TREATMENT STANDARDS FOR U005, U018, U022, U050, U063, U120, U137, U157, AND U165

[Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U005	2-Acetylaminofluorene .....	13
U018	Benz(a)anthracene .....	3.6
U022	Benzo(a)pyrene .....	3.6
U050	Chrysene .....	3.6
U063	Dibenzo(a,h)anthracene .....	13
U120	Fluoranthene .....	3.6
U137	Indeno(1,2,3-c,d)pyrene .....	3.6
U157	3-Methylchloanthrene .....	33
U165	Naphthalene .....	5.9

#### BDAT TREATMENT STANDARDS FOR U005, U018, U022, U050, U063, U120, U137, U157, AND U165

[Wastewaters]<sup>1</sup>

Waste Code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U005	2-Acetylaminofluorene .....	0.058
U018	Benz(a)anthracene .....	0.030
U022	Benzo(a)pyrene .....	0.030
U050	Chrysene .....	0.15
U063	Dibenzo(a,h)anthracene .....	0.012
U120	Fluoranthene .....	0.030
U137	Indeno(1,2,3-c,d)pyrene .....	0.030
U157	3-Methylchloanthrene .....	0.58
U165	Naphthalene .....	0.007

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6.) (b.).

#### BDAT TREATMENT STANDARDS FOR U051 AND K001

[Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Naphthalene .....	1.5
Pentachlorophenol .....	7.4
Phenanthrene .....	1.5
Pyrene .....	1.5
Toluene .....	28
Xylene(s) .....	33

#### BDAT TREATMENT STANDARDS FOR U051 AND K001

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Naphthalene .....	0.031
Pentachlorophenol .....	0.18
Phenanthrene .....	0.031
Pyrene .....	0.028
Toluene .....	0.028
Xylene(s) .....	0.032
Lead .....	0.037

#### BDAT TREATMENT STANDARDS FOR U016, U064 AND U094

[Nonwastewaters]

Incineration as a method of treatment

#### BDAT TREATMENT STANDARDS FOR U016, U064 AND U094

[Wastewaters]

Wet air oxidation or chemical oxidation followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration as methods of treatment

#### d. Phenolics.

P020—2-sec-Butyl-4,6-dinitrophenol

(Dinoseb)

P034—2-cyclohexyl-4,6-dinitrophenol

P047—4,6-dinitrocresol and salts  
P048—2,4-dinitrophenol  
U052—Cresol (Cresylic Acid)  
U101—2,4-Dimethyl phenol  
U170—4-Nitrophenol  
U188—Phenol  
U201—Resorcinol

EPA grouped these four P wastes and five U wastes together because the chemicals they represent are all nonhalogenated organic compounds in which one or more hydroxyl groups (OH) are attached to the benzene ring (i.e., phenolics). These compounds are further divided into two subcategories based on whether or not a nitro group (NO<sub>2</sub>) is attached to the phenolic compound.

EPA selected one compound that is representative of the treatability of both subcategories for the purpose of transferring standards. Dinoseb is a representative of the nitrophenolics and phenol is a representative of the other phenolics. Because the representative wastes are so similar to the other wastes in this treatability group, the Agency is proposing to transfer treatment performance data to the other waste codes they represent in each subcategory with the exception of P034, as discussed at the end of this section.

(1) P020, P047, P048, U101, U170, U188, and U201. The Agency has performance data on the treatment of Dinoseb and phenol obtained from a rotary kiln incinerator test burn EPA performed in June, 1989. The feed included three hazardous wastes and fifteen commercial chemical products representing a number of treatability groups. Dinoseb and phenol were present in the waste feed at concentrations of 8.9% and 1.4%, respectively. (More information on the test burn can be found in section III.A.1.h.(6.) of today's preamble as well as in the Onsite Engineering Report of the Third Third Incineration Treatability Test, July, 1989).

Additional treatment data exist for phenol and p-cresol. The wastes for which these data exist include: (1) K001 (bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol); (2) K019 (heavy ends from distillation of dichloride in ethylene dichloride production); (3) K022 (distillation bottom tars from the production of phenol/acetone from cumene); (4) K087 (decanter tank tar sludge from coking operations); and (5) K102 (residue from the use of activated carbon for



decolorization in the production of veterinary pharmaceuticals from arsenic or organoarsenic compounds).

These data represent different waste types containing phenol and p-cresol that were treated by incineration. Six sample sets were analyzed in K001, nine in K019, six in K022, and five samples in K102. In general, phenol and p-cresol were treated to the detection limits in the ash and scrubber water. The detection limits ranged from 0.50 ppm to 3.8 ppm for the ash, and 0.002 mg/l to 0.023 mg/l for the scrubber water. The concentrations in the untreated waste ranged from 4 ppm to 1000 ppm.

These data, along with the data from the June, 1989 test burn, were used to develop concentration-based standards for nonwastewater forms of P020, P047, P048, U101, U170, U188, and U201. These incineration data are also the only available treatment data for these wastes.

The Agency is in the process of conducting wastewater treatment tests for wastewater forms of these wastes using wet air oxidation, PACT (powdered activated carbon treatment), and carbon adsorption. These data are available in the administrative record for today's notice. Where the Agency has actual wastewater treatment data, it prefers to use that data rather than use scrubber water concentrations to develop wastewater treatment standards. Today's concentration-based wastewater standards are based on incinerator scrubber water.

(2) P034. Because no calibration standard exists for 2-cyclohexyl-4,6-dinitrophenol (P034), the compound cannot be routinely analyzed. When the Agency is unable to set a concentration-based treatment standard, the Agency prefers to set a method of treatment. Thus, the Agency is proposing a standard of "Incineration as a Method of Treatment" for P034 nonwastewaters. This is justified because of the structural similarity between 2-cyclohexyl-4,6-dinitrophenol and 2-sec-Butyl-4,6-dinitrophenol (P020—Dinoseb), and because the Agency has data on P020 demonstrating incineration can achieve detection limits for these phenolics.

For P034 wastewaters the Agency is proposing "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as Methods of Treatment." The Agency believes that these technologies are appropriate for treatment of P034 and have been

demonstrated and/or promulgated for similar phenolics (see also preceding discussion in III.A.3.a.(3)).

(3) P047. According to 40 CFR 261.33(e), wastes identified as P047 are listed for the presence of 4,6-dinitrocresol and salts. Because these salts are not analyzed as 4,6-dinitrocresol, the Agency is today proposing standards of "Incineration as a Method of Treatment" for P047 nonwastewaters identified as "salts of 4,6-dinitrocresol" and "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as Methods of Treatment" for P047 wastewaters identified as "salts of 4,6-dinitrocresol". This is justified because of the structural similarity between 4,6-dinitrocresol and 2-sec-Butyl-4,6-dinitrophenol (P020—Dinoseb), and because the Agency has data on P020. (See preceding discussion in sections III.A.3.a.(3.) on specifying treatment for wastewaters containing nonhalogenated organics and the related discussion of treatment standards for U240 wastes (2,4-D, salts and esters) in section III.A.2.c.(4.)(c).)

For P047 wastes expected to be simply 4,6-dinitrocresol, the Agency is also proposing concentration-based standards based on the analysis for only 4,6-dinitrocresol. Thus, where a facility can reasonably assume that only 4,6-dinitrocresol is being handled, only the concentration-based treatment standard for 4,6-dinitrocresol would be applied. However, should one expect that salts or esters could be formed during storage, treatment, or disposal, the P047 wastes would have to be treated by the specified methods depending upon the form of the waste.

(4) U052. U052 is listed as "cresols (cresylic acid)". Cresylic acid is the name given to a mixture of three isomeric cresols (methyl phenols), in which the meta-cresol predominates. Thus, U052 typically contains various levels of ortho-cresol, meta-cresol and para-cresol. Analytical methods are usually reported for o-cresol and a combination of m- and p-cresol, because m-cresol and p-cresol cannot be distinguished by the analytical method. Thus, the Agency is today proposing concentration-based standards for U052 based on an analysis for o-cresol and the mixture of m-cresol and p-cresol.

#### BDAT TREATMENT STANDARDS FOR P020, P047, P048, U052, U101, U170, U188, AND U201

##### [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
P020	2-sec-Butyl-4,6-dinitrophenol.....	2.5
P047	4,6-dinitrocresol (incineration for salts).....	140
P048	2,4-dinitrophenol.....	140
U052	o-Cresol.....	5.6
U052	Cresol (m- and p-isomers)....	3.2
U101	2,4-Dimethyl phenol.....	14
U170	4-Nitrophenol.....	65
U188	Phenol.....	6.2
U201	Resourcinol.....	1.8

#### BDAT TREATMENT STANDARDS FOR P020, P047, P048, U052, U101, U170, U188, AND U201

##### [Wastewaters]<sup>1</sup>

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
P020	2-sec-Butyl-4,6-dinitrophenol...	0.036
P047	4,6-dinitrocresol (wet air/carbon for salts).....	0.18
P048	2,4-dinitrophenol.....	0.18
U052	o-Cresol.....	0.0066
U052	Cresol (m- and p-isomers)....	0.028
U101	2,4-Dimethyl phenol.....	0.045
U170	4-Nitrophenol.....	0.18
U188	Phenol.....	0.091
U201	Resourcinol.....	8.2

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6.)(b.).

#### BDAT TREATMENT STANDARDS FOR P034 AND P047 (SALTS)

##### [Nonwastewaters]

Incineration as a method of treatment

#### BDAT TREATMENT STANDARDS FOR P034 AND P047 (SALTS)

##### [Wastewaters]

Wet air oxidation or chemical oxidation followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration as methods of treatment



*e. Oxygenated Hydrocarbons and Heterocyclics*

P001—Warfarin (<3%)  
 P003—Acrolein  
 P005—Allyl alcohol  
 P088—Endothall  
 P102—Propargyl alcohol  
 U001—Acetaldehyde  
 U002—Acetone  
 U004—Acetophenone  
 U008—Acrylic acid  
 U031—n-Butanol  
 U053—Crotonaldehyde  
 U057—Cyclohexanone  
 U085—1,2,3,4-Diepoxybutane  
 U108—1,4-Dioxane  
 U112—Ethyl acetate  
 U113—Ethyl acrylate  
 U117—Ethyl ether  
 U118—Ethyl methacrylate  
 U122—Formaldehyde  
 U123—Formic acid  
 U124—Furan  
 U125—Furfural  
 U126—Glycidialdehyde  
 U140—Isobutanol  
 U147—Maleic anhydride  
 U154—Methanol  
 U159—Methyl ethyl ketone  
 U161—Methyl isobutyl ketone  
 U162—Methyl methacrylate  
 U166—1,4-Naphthoquinone  
 U182—Paraldehyde  
 U197—p-Benzoquinone  
 U213—Tetrahydrofuran  
 U248—Warfarin (<3%)

EPA grouped these five P wastes and twenty nine U wastes together because the primary constituents for which the wastes were listed are oxygenated hydrocarbons. The hydrocarbons contain at least one oxygen atom integrated into the chemical structure by a single or double bond to a carbon. As a result, this group includes functional groups such as ketones, aldehydes, and alcohols. These compounds are also distinguished from other nonhalogenated organics by the absence of nitrogen, sulfur, and/or phosphorous in their elemental composition.

(1) *Wastes for Which Concentration-Based Standards are Proposed as BDAT.* The Agency has identified incineration or fuel substitution as an applicable technology for treatment of nonwastewater forms of P003 (wastewaters), U002, U004, U031, U057, U108, U112, U117, U118, U140, U159, U161, U162, U166, and U197 wastes. While the Agency has been unable to obtain performance data based on incineration or fuel substitution for these particular U and P wastes, the Agency is aware that many facilities generating these wastes also incinerate them prior to land disposal. Therefore, the Agency believes incineration and fuel substitution are BDAT for these U and P wastes. As a result, EPA is proposing concentration-based treatment standards for these wastes based on the

transfer of available incineration performance data on these constituents (or structurally similar constituents) as they appear in other RCRA hazardous wastes. Detailed information for EPA's rationale and the source of performance data for each waste are provided in the BDAT Background Document for U and P Hydrocarbon and Heterocyclic wastes.

The Agency notes that the primary constituents for which U031, U112, and U117 are listed as hazardous wastes in the 40 CFR 261.33 (n-Butanol, ethyl acetate, and ethyl ether respectively) were not originally considered BDAT List Constituents. The primary constituents of these wastes are now considered BDAT List Constituents because EPA has identified several EPA SW-846 Test Methods that may be able to quantify them in wastewaters. The identified EPA SW-846 Test Methods are as follows: 8015 for U031 (GC/MS) and 8240 for both U112 (direct injection—GC/MS) and U117 (Purge and Trap—GC/MS). As a result, the Agency urges facilities that are unable to meet the proposed concentration based treatment standards to submit comments addressing the use of these EPA SW-846 test methods or test methods that are used routinely by them. The treatment standards for wastewater forms of the U wastes presented in the tables following this section, have been calculated based primarily on the detection limits of these constituents in scrubber waters. However, additional data are available for the treatment of these constituents in wastewaters and alternative standards based on these data are presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. (See previous discussions on these data and alternative standards in section III.A.1.h.(6), and III.A.3.a.(2.)).

(2) *Wastes for Which the Agency is Proposing a Method of Treatment as BDAT.* The Agency has identified incineration and fuel substitution as BDAT for treatment of nonwastewater forms of P001, P003, P005, P088, P102, U001, U008, U053, U085, U113, U122, U123, U124, U125, U126, U147, U154, U182, U213, and U248 wastes. For various reasons outlined in the background document for these wastes, all of these chemicals except P003 and U154 currently lack analytical methods that can satisfactorily analyze for their constituents of concern in complex waste matrices. Thus, as discussed in detail in section III.A.1.h.(2.) of today's preamble, the Agency is proposing a standard of "Incineration as a Method of Treatment" for these U and P nonwastewaters.

For wastewater forms of these wastes, the Agency is proposing "Wet Air Oxidation or Chemical Oxidation, Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as a Method of Treatment." The Agency believes that these technologies are appropriate for treatment of these constituents and have been demonstrated and/or promulgated for similar U and P waste codes (see preceding discussion in III.A.3.a.(3.)).

(3) *Standards for P003 and U154 Wastes.* EPA's limited data on the detection limits of acrolein (P003) in incinerator ash are highly variable. Since these data do show that incineration can achieve detection limits for acrolein in a variety of wastes, and since a high treatment standard could potentially allow a waste with high concentrations of P003 to go untreated; the Agency has chosen to propose both "Incineration as a Method of Treatment" P003 nonwastewaters. For methanol (U154) EPA lacks characterization data from incineration ash or scrubber water. However, EPA believes that methanol can be effectively treated by incineration based on the information that other alcohols of higher molecular weight can be incinerated. As a result, EPA is proposing "Incineration as a Method of Treatment" for U154 nonwastewaters and wastewaters. EPA notes that it prefers promulgation of a concentration-based standard for reasons discussed in section III.A.1.a. and therefore is soliciting comment and data that could be used as additional support for the establishment of an achievable concentration-based standard for acrolein and methanol in P003 and U154 wastes, respectively.

The main reason that the Agency lacks data on methanol is that it typically utilizes data for volatile compounds that are obtained through the analysis of samples by gas chromatography/mass spectrometry (GC/MS). The mass spectrum of methanol is difficult to distinguish from other low molecular weight species. Therefore the quantification of methanol by GC/MS techniques is difficult and as a result methanol is not routinely analysed.

The Agency is aware of GC methods that can analyze for methanol in wastewaters; however, it currently has no data for the analysis of nonwastewaters using GC methods. Additional data primarily from the Agency's Office of Water are available for the treatment of alcohols similar to methanol in wastewaters. A concentration-based standard for



methanol in wastewater forms of multi-source leachate has been calculated using these data and is presented in section III.A.7. of today's notice. (See previous discussions on these data and alternative standards in section III.A.1.h.(6.) and III.A.2.a.(3.)). The Agency may promulgate this standard for U154 wastewaters based on a transfer of these data. The Agency specifically solicits comment and data that support the establishment of a concentration-based standard for U154 wastes.

#### BDAT TREATMENT STANDARDS FOR U002, U004, U031, U057, U108, U112, U117, U118, U140, U159, U161, U162, U166, AND U197

[Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U002	Acetone.....	0.14
U004	Acetophenone.....	9.6
U031	n-Butanol.....	2.6
U057	Cyclohexanone.....	1.9
U108	1,4-Dioxane.....	280
U112	Ethyl acetate.....	5.6
U117	Ethyl ether.....	140
U118	Ethyl methacrylate.....	160
U140	Isobutanol.....	170
U159	Methyl ethyl ketone.....	200
U161	Methyl isobutyl ketone.....	33
U162	Methyl methacrylate.....	160
U166	1,4-Naphthoquinone.....	1.9
U197	p-Benzoquinone.....	180

#### BDAT TREATMENT STANDARDS FOR P003, U002, U004, U031, U057, U108, U112, U117, U118, U140, U159, U161, U162, U166, AND U197

[Wastewaters] <sup>1</sup>

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
P003	Acrolein.....	3.6
U002	Acetone.....	0.25
U004	Acetophenone.....	0.17
U031	n-Butanol.....	0.56
U057	Cyclohexanone.....	1.4
U108	1,4-Dioxane.....	0.80
U112	Ethyl acetate.....	0.0052
U117	Ethyl ether.....	0.28
U118	Ethyl methacrylate.....	0.47
U140	Isobutanol.....	1.4
U159	Methyl ethyl ketone.....	0.14
U161	Methyl isobutyl ketone.....	0.028
U162	Methyl methacrylate.....	0.47
U166	1,4-Naphthoquinone.....	0.073
U197	p-Benzoquinone.....	13

<sup>1</sup> Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards

in section III.A.1.h.(6.) (b.).

#### BDAT TREATMENT STANDARDS FOR P001, P003, P005, P088, P102, U001, U008, U053, U085, U113, U122, U123, U124, U125, U126, U147, U154, U182, U213, AND U248

[Nonwastewaters]

Incineration or fuel substitution as methods of treatment

#### BDAT TREATMENT STANDARDS FOR P001, P005, P088, P102, U001, U008, U053, U085, U113, U122, U123, U124, U125, U126, U147, U154, U182, U213, AND U248

[Wastewaters]

Wet air oxidation or chemical oxidation followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration as methods of treatment

*f. Organo-Nitrogen Compounds.* EPA has grouped eleven P wastes and thirty seven U wastes together into a single general treatability category, identified as organo-nitrogen compounds. These P and U wastes represent a wide range of chemicals produced in a variety of individual processes. EPA's reasons for grouping these organic chemicals together is that they all contain nitrogen and do not contain chlorine or any other halogen. To facilitate transferring appropriate treatability data, EPA further divided this category into six subgroups based on structure, giving functional group similarities particular priority. These subgroups are: (1) Nitrogen Heterocyclics; (2) Amines and Amides; (3) Nitrogen-Bearing Diphenyls; (4) Nitriles; (5) Nitro Compounds and (6) Nitroso Compounds.

(1) *Concentration-based Standards for Organo-Nitrogens.* In today's notice, EPA is proposing concentration-based standards for these U and P nonwastewaters based on a transfer of performance data from other "surrogate" organo-nitrogen constituents that were determined to be similar in structure to the compounds within each subcategory of organo-nitrogen compounds. As a result, EPA believes all of these U and P constituents can be destroyed by incineration to detection limits. However, the Agency does not have specific data on the direct incineration of the majority of these

specific U and P wastes or their corresponding constituents.

The concentration-based treatment standards for wastewater forms of these U and P organo-nitrogen compounds presented in the tables following this section, have been calculated based primarily on the detection limits of these constituents (or surrogates) as measured in scrubber waters from incineration of nonwastewaters containing these organo-nitrogen constituents. However, additional data are available for the treatment of these constituents in wastewaters and alternative standards based on these data are presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. (See previous discussions on these data and alternative standards in section III.A.1.h.(6.) and III.A.2.a.(3.)).

(2) *Technology-based Standards for Organo-Nitrogens.* The Agency has determined that currently there are considerable difficulties in analyzing many of these organo-nitrogen compounds. As a result, concentration-based standards for these constituents are apparently not feasible. See section III.A.1.h.(2.) (b.) of today's preamble for a further discussion of the Agency's approach in such instances. Since 3004(m) allows the Agency to establish either levels or methods of treatment, the Agency is proposing a standard of "Incineration as a Method of Treatment" for the nonwastewater forms and "Wet Air Oxidation or Chemical Oxidation Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as a Methods of Treatment" for wastewaters. The Agency believes that these technologies are appropriate for treatment of these constituents and have been demonstrated and/or promulgated for similar U and P waste codes (see preceding discussion for wastewaters in III.A.3.a.(3.)).

The Agency reminds commenters that there are very few (if any) of these wastes that are currently being generated as originally listed and that in practice, the standards will probably only be necessary for residues from previous disposal. The Agency believes that these residues should be less difficult to treat than the original waste as generated. EPA also requests comment on the choice of transfer data for concentration-based standards and on the validity of the subgroupings used to assign standards.

(3) *Potential Air Emission Concerns with Organo-Nitrogens.* Because the Agency expects that the incineration of these organo-nitrogen compounds may adversely impact air quality due to the



emission of nitrogen oxides, EPA is considering the need to impose additional air quality controls on the incineration of these wastes, either under RCRA or under the Clean Air Act. For a more complete discussion of the alternatives under consideration, see the discussion of organo-sulfur compounds later in this section.

(4) *Discussion of Individual Treatability Groups—(a) Nitrogen Heterocyclic Compounds.*

P008—4-Aminopyridine  
P018—Brucine  
P054—Aziridine  
P067—2-Methylaziridine  
U011—Amitrole  
U148—Maleic Hydrazide  
U179—N-Nitrosopiperidine  
U180—N-Nitrosopyrrolidine  
U191—2-Picoline  
U196—Pyridine

This subgroup consists of ten wastes grouped together because they contain a ring of carbon atoms which also includes a nitrogen atom. Three have aromatic rings, six have rings made of single bonds. Only N-nitrosopiperidine (U179), N-nitrosopyrrolidine (U180), and pyridine (U196) are amenable to quantification in treatment residuals by SW-846 methods. Therefore, EPA is proposing concentration-based standards for only these three wastes in this treatability subcategory. EPA believes incineration will reduce U179, U180 and U196 to detection limits in ash and scrubber water because of the Agency's incineration data that indicate destruction to detection levels of Pronamide. The Agency believes that Pronamide, a halogenated organo-nitrogen compound (3,5-dichloro N-(1,1-dimethyl-2-propynyl)-benzamide), is more difficult to incinerate than these ten nitrogen-containing heterocycles.

Based on this, the Agency is also proposing specified methods of treatment for both wastewater and nonwastewater forms of the seven members of the nitrogen heterocyclic subcategory which are not amenable to quantification in waste treatment residual matrices. P054, P067, U011 and U048 are amenable only to analysis by HPLC. (Note: EPA rejects HPLC methods for waste treatment residual matrices for reasons discussed in section III.A.1.h.(2).(a).) For P008, P018, and U191 there are no verified SW-846 analytical methods available. The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-nitrogen U and P wastes are presented in section III.A.3.f.(3.).

(b) *Amine and Amide Compounds.*

P046—alpha, alpha-Dimethylphenethylamine  
P064—Isocyanic acid, ethyl ester

U007—Acrylamide  
U012—Aniline  
U092—Dimethylamine  
U110—Dipropylamine  
U167—1-Naphthylamine  
U168—2-Naphthylamine  
U194—n-Propylamine  
U238—Ethyl carbamate

This subgroup consists of ten wastes grouped together because they contain either an amide or an amine group. Two are fused aromatic rings, four contain single benzene rings, three are amine groups attached to aliphatic carbon chains and three have amide groups attached to ether bonds or to double carbon bonds. Four of these wastes are amenable to quantification in waste treatment residual matrices by current SW-846 methods: acrylamide (U007), aniline (U012), 1-naphthylamine (U167), and 2-naphthylamine (U168); however, the Agency does not have adequate analytical data characterizing incinerator ash and scrubber water to set concentration-based standards based on detection limits for U007. Therefore, EPA is proposing concentration-based treatment standards only for U012, U167 and U168 nonwastewaters. These standards are based on data showing how 4-nitrophenol can be incinerated to detection limits in ash and scrubber water. EPA believes that 4-nitrophenol is more difficult to incinerate than the amines and amides identified as in this treatability group.

In a similar manner, for P046, P064, U092, U110, U194, and U238 (the six members of the amines and amides subcategory not amenable to quantification)—plus U007 which can be quantified but for which no analytical data is available—EPA is proposing treatment standards based on incineration as BDAT. U007 and U238 have amide groups and thus are easier to incinerate than 4-nitrophenol, which has been proven to be treated to detection levels by incineration. P064 has an amide-like structure with an attached nitrile group, where the nitrogen has a double bond to a carbonyl group which appears to be more amenable to destruction by incineration than 4-nitrophenol or pronamide. P046, U092, U110, and U194, have amine groups which are more easily destroyed by incineration than nitro-groups.

Six wastes in this treatability group are not amenable to quantification for the following reasons: (1) calibration reagents are not commercially available for P046 and P064; (2) U238 is only quantifiable by HPLC methods (Note: EPA rejects HPLC methods for waste treatment residual matrices for reasons

discussed in section III.A.1.h.(2).(a).); and (3) for U092, U110 and U194 there are no verified SW-846 analytical methods available. The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-nitrogen U and P wastes are presented in section III.A.3.f.(3.).

(c) *Aminated Diphenyls and Biphenyls.*

U014—Auramine  
U021—Benzidine  
U091—3,3-Dimethoxybenzidine  
U093—p-Dimethylaminoazobenzidine  
U095—3,3'-Dimethylbenzidine  
U236—Trypan Blue

This subgroup consists of six wastes grouped together because they contain two benzene rings joined by a single bond or bridged by a single carbon or by a nitrogen-nitrogen double bond. Each biphenyl has at least one amine functional group. Trypan blue has a complex structure including a binuclear double benzene ring on each phenyl with NaO<sub>3</sub>S moieties on each double benzene ring.

Although three of these wastes are amenable to quantification in treatment residuals by SW-846 methods (U091, U093 and U095), EPA is only proposing concentration-based standards for U093 alone because the Agency encountered problems with analytical data in determining detection limits for U091 and U095. The concentration based treatment standards for U093 wastewaters and nonwastewaters are proposed based on incineration to detection limits transferred from data showing that methoxychlor (a chlorinated diphenyl believed to be more difficult to incinerate) and Pronamide can be destroyed to detection limits in incinerator ash and scrubber water.

EPA believes U014, U021, U091, U095 and U236 can be effectively incinerated for the same reason as U093. For these remaining five members of the aminated diphenyls and biphenyls subcategory, in addition to U091 and U095, EPA is proposing treatment standards based on incineration as BDAT. Three wastes, however, are not amenable to quantification for the following reasons: (1) U014 and U236 are only quantifiable by HPLC methods (Note: EPA rejects HPLC methods for waste treatment residual matrices for reasons discussed in section III.A.1.h.(2).(a).); and (2) U021 is unstable in water (see background discussion in III.A.1.h.(2).(c)). The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-nitrogen U and P wastes are presented in section III.A.3.f.(3.).



## (d) Nitriles.

P069—Methylacetonitrile  
 P101—Propanenitrile  
 U003—Acetonitrile  
 U009—Acrylonitrile  
 U149—Malononitrile  
 U152—Methacrylonitrile

This subgroup consists of six wastes grouped together because they contain nitrile groups, which consist of a nitrogen carbon triple bond. All are straight-chain aliphatics; two have a carbon-carbon double bond in the chain and one has two attached nitrile groups.

EPA believes incineration will treat all six of these nitriles to detection limits in ash and scrubber water based on data showing that incineration treats 1,1,1-trichloroethylene and Pronamide to detection limits. The Agency believes both Pronamide and 1,1,1-trichloroethane are more difficult to incinerate than these six compounds. Four of these are amenable to quantification in treatment residuals by SW-846 methods: P101, U003, U009 and U152. Two of these nitriles are not amenable to quantification for the following reasons: (1) calibration reagents are not commercially available for P069 (see background discussion in III.A.1.h.(2).)(b.); and (2) for U149 wastes there are no verified SW-846 analytical methods available. The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-nitrogen U and P wastes are presented in section III.A.3.f.(3.).

## (e) Nitro Compounds.

P077—p-Nitroaniline  
 U105—2,4-Dinitrotoluene  
 U106—2,6-Dinitrotoluene  
 U169—Nitrobenzene  
 U171—2-Nitropropane  
 U181—5-Nitro-o-toluidine  
 U234—sym-Trinitrobenzene

This subgroup consists of seven wastes grouped together because they contain at least one nitro functional group: a nitrogen atom attached to two oxygen atoms. Seven have single benzene rings and one has a three-carbon aliphatic chain.

Five of these wastes are amenable to quantification in treatment residuals by SW-846 methods: P077, U105, U106, U169, and U181. Concentration-based standards for wastewater and nonwastewater forms of U105 are proposed based directly on incineration data for 2,4-dinitrotoluene. Concentration-based standards for wastewater and nonwastewater forms of U169, U181, P077 and U106 are proposed based on incineration to detection limits in ash and scrubber water of 2,4-dinitrotoluene, 4-nitrophenol, and nitrobenzene. All three

of these are structural representatives of this subcategory of organo-nitrogens identified simply as the Nitro Subcategory.

In a similar manner, the Agency is proposing incineration as the basis for treatment standards for U234 and U171. These two members of the Nitro Subcategory that are not amenable to quantification in waste treatment residuals because there are no verified SW-846 analytical methods available, therefore, the Agency is proposing specified methods of treatment for P084, U173, U176, U177, and U178. The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-nitrogen U and P wastes are presented in section III.A.3.f.(3.).

## (f) Nitroso Compounds.

P082—N-Nitrosodimethylamine  
 P084—N-Nitrosomethylvinylamine  
 U111—Di-n-propylnitrosoamine  
 U172—N-Nitroso-di-n-butylamine  
 U173—N-Nitroso-di-n-ethanolamine  
 U174—N-Nitrosodiethylamine  
 U176—N-Nitroso-N-ethylurea  
 U177—N-Nitroso-N-methylurea  
 U178—N-Nitroso-N-methylurethane

This subgroup consists of nine wastes grouped together because they contain a nitroso functional group: a nitrogen double bonded to an oxygen. In all nine of these U and P chemicals, the nitroso group is attached to another nitrogen molecule within a relatively small aliphatic structure. Four chemicals also contain oxygen in functional groups such as amides, ethers and ketones.

Four of these are amenable to quantification in treatment residuals by SW-846 methods: P082, U111, U172 and U174. EPA believes that all nine of these nitroso compounds are less difficult to incinerate than Pronamide and is therefore proposing concentration-based treatment standards based on detection limits for P082, U111, U172 and U174 and is proposing specified methods of treatment for P084, U173, U176, U177, and U178. These five members of the Nitroso Subcategory are not amenable to quantification in waste treatment residual matrices because there are no verified SW-846 analytical methods available. The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-nitrogen U and P wastes are presented in section III.A.3.f.(3.).

BDAT TREATMENT STANDARDS FOR  
 U179, U180, U196, U012, U167, U168,  
 U093, P101, U003, U009, U152, P077,  
 U105, U106, U169, U181, P082, U111,  
 U172, AND U174

## [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U179	N-Nitrosopiperidine .....	220
U180	N-Nitrosopyrrolidine .....	220
U196	Pyridine .....	16
U012	Aniline .....	14
U167	1-Naphthylamine .....	15
U168	2-Naphthylamine .....	15
U093	p-Dimethylaminoazoben- zene .....	29
P101	Propanenitrile .....	360
U003	Acetonitrile .....	0.35
U009	Acrylonitrile .....	0.28
U152	Methacrylonitrile .....	84
P077	p-Nitroaniline .....	28
U105	2,4-Dinitrotoluene .....	140
U106	2,6-Dinitrotoluene .....	28
U169	Nitrobenzene .....	14
U181	5-Nitro-o-toluidine .....	56
P082	N-Nitrosodimethylamine .....	56
U111	Di-n-propylnitrosoamine .....	14
U172	N-Nitroso-di-n-butylamine .....	54
U174	N-Nitrosodiethylamine .....	28

BDAT TREATMENT STANDARDS FOR  
 U179, U180, U196, U012, U167, U168,  
 U093, P101, U003, U009, U152, P077,  
 U105, U106, U169, U181, P082, U111,  
 U172, AND U174

## [Wastewaters]\*

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
U179	N-Nitrosopiperidine .....	1.3
U180	N-Nitrosopyrrolidine .....	1.3
U196	Pyridine .....	0.031
U012	Aniline .....	0.033
U167	1-Naphthylamine .....	0.37
U168	2-Naphthylamine .....	1.8
U093	p-Dimethylaminoazoben- zidine .....	0.74
P101	Propanenitrile .....	0.64
U003	Acetonitrile .....	0.42
U009	Acrylonitrile .....	0.64
U152	Methacrylonitrile .....	0.47
P077	p-Nitroaniline .....	0.25
U105	2,4-Dinitrotoluene .....	0.17
U106	2,6-Dinitrotoluene .....	0.051
U169	Nitrobenzene .....	0.033
U181	5-Nitro-o-toluidine .....	2.2
P082	N-Nitrosodimethylamine .....	0.67
U111	Di-n-propylnitrosoamine .....	0.065
U172	N-Nitroso-di-n-butylamine .....	0.67
U174	N-Nitrosodiethylamine .....	0.67

\* Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards



in section III.A.1.h.(6)(b).

BDAT TREATMENT STANDARDS FOR P008, P018, P046, P054, P064, P067, P069, P084, U007, U011, U014, U021, U091, U092, U095, U110, U148, U149, U171, U173, U176, U177, U178, U191, U194, U234, U236, AND U238

[Nonwastewaters]

Incineration as a Method of Treatment

BDAT TREATMENT STANDARDS FOR P008, P018, P046, P054, P064, P067, P069, P084, U007, U011, U014, U021, U091, U092, U095, U110, U148, U149, U171, U173, U176, U177, U178, U191, U194, U234, U236, AND U238

[Wastewaters]

Wet Air Oxidation or Chemical Oxidation Followed by Carbon Adsorption; Biodegradation Followed by Carbon Adsorption; or Incineration as Methods of Treatment

#### g. Organo-Sulfur Compounds.

P002—1-Acetyl 2-thiourea  
P014—Benzene thiol (Thiophenol)  
P022—Carbon disulfide  
P045—Thiofanox  
P049—2,4-Dithiobiurete  
P066—Methomyl  
P070—Aldicarb  
P072—1-Naphthyl-2-thiourea (Bantu)  
P093—N-Phenylthiourea  
P116—Thiosemicarbazide  
U114—Ethylene bis-dithiocarbamic acid  
U116—Ethylene thiourea  
U153—Methane thiol  
U119—Ethyl methane sulfonate  
U193—1,3-Propane sultone  
U218—Thioacetamide  
U219—Thiourea  
U244—Thiram

The chemicals in the Organo-Sulfur treatability group are all basically hydrocarbons that contain sulfur. Some also contain nitrogen and/or oxygen in their structure. EPA is proposing treatment standards as specified methods for all eighteen of these organo-sulfur compounds. While several of these organo-sulfurs are amenable to quantification in waste treatment residual matrices by current SW-846 analytical methods, the Agency has not obtained any data characterizing either treated or untreated organo-sulfur wastes. In addition, the Agency has not determined a surrogate compound from which to transfer concentration-based standards.

The other members of the Organo-Sulfur treatability group are not amenable to quantification in waste treatment residual matrices because there are no verified SW-846 analytical

methods available. The specified methods proposed as wastewater and nonwastewater treatment standards for all organo-sulfur U and P wastes are the same as those for all of the organo-nitrogen subcategories. These technologies are presented in section III.A.3.f.(3.) as they relate to organo-nitrogens.

The Agency also points out that many of these compounds have very offensive or strong odors associated with them. In fact, the Agency attempted to include benzene thiol (Thiophenol-P014) and carbon disulfide (P022) as representatives of this treatability group in its massive test burn (see discussion of this burn in section III.A.1.h.(6)(a)), however permitting problems arose (due to the odors specifically associated with these compounds) that could not be solved in a reasonable time frame. This jeopardized the completion of the test burn, so the Agency had to drop these chemicals from the list of chemicals to be burned. However, the Agency does believe that these odor problems could have been resolved with appropriate technical precautions (given the Agency had had more time). These odor problems also present an interesting reason for specifying technologies rather than concentration-based standards, i.e., the less handling of these compounds, the better. (Note: In case the reader has had no experience with these compounds, methane thiol (U153) has the distinct odor of rotten cabbage.)

EPA believes that these compounds are all amenable to treatment by incineration because they resemble aliphatic, aromatic and other organic compounds that have been successfully treated by incineration. EPA requests comments on the choice of incineration as the method of treatment for organosulfur wastes. Specifically, the Agency solicits supporting evidence on concentrations of sulfur in waste feeds that have been successfully incinerated. This information should include specific design and operating conditions established for incineration of these specific organo-sulfur compounds and/or specific established restrictions (either regulatory or company policy) on the concentrations of total sulfur in waste feeds. Prospective commenters are referred to section III.A.1.i. for explanation of the special procedures that the Agency intends to utilize to provide additional rapid notice and comment on any new data and information received prior to the closure of the comment period and should identify their interest in receiving notice on these data as "Organosulfur Wastes III.A.3.g.".

The Agency is concerned, however, with the potential nitrogen and sulfur emissions generated from the incineration of these wastes. The formation of nitrogen or sulfur oxides in the process of incinerating any of these compounds may require additional controls in order to meet air quality requirements pursuant to Section 108, 110, and 111 of the Clean Air Act or New Source Review under the CAA's Prevention of Significant Deterioration program. Therefore, EPA requests comment on incinerator design and operation. EPA particularly seeks operating data addressing nitrogen and sulfur oxide generation and control in burning wastes containing nitrogen or sulfur, information on combustion units equipped with nitrogen or sulfur oxide controls such as selective noncatalytic reduction or selective catalytic reduction, and information concerning the availability of facilities that can incinerate these wastes while meeting applicable air quality requirements for sulfur and nitrogen oxide emissions. (This information also bears on the issue of availability of sufficient treatment capacity for purposes of RCRA section 3004(h).) EPA also solicits comment on the advisability of invoking the omnibus permitting requirements of RCRA (section 3005(c), final sentence) for all sources burning these wastes, or restricting the treatment of these wastes to combustion units that have appropriate air pollution controls, in order to reduce the adverse human health and environmental effects of burning these wastes. See also Section V.D. in today's notice for further discussion of regulatory control mechanisms available under the Clean Air Act.

BDAT TREATMENT STANDARDS FOR P002, P014, P022, P045, P049, P066, P070, P072, P093, P116, U114, U116, U119, U153, U193, U218, U219, AND U244

[Nonwastewaters]

Incineration as a method of treatment

BDAT TREATMENT STANDARDS FOR P002, P014, P022, P045, P049, P066, P070, P072, P093, P116, U114, U116, U119, U153, U193, U218, U219, AND U244

[Wastewaters]

Wet air oxidation or chemical oxidation followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration as methods of treatment



#### *h. Wastes of a "Pharmaceutical" Nature.*

P007—Muscimol (5-Aminoethyl 3-isoxazolol)  
 P042—Epinephrine  
 P075—Nicotine and salts  
 P108—Strychnine and salts  
 U010—Mitomycin C  
 U015—Azaserine  
 U035—Chlorambucil  
 U059—Daunomycin  
 U089—Diethyl stilbestrol  
 U090—Dihydroisoflavanol  
 U141—Isosafrole  
 U143—Lasiocarpine  
 U150—Melfalan  
 U155—Methapyrilene  
 U163—N-Methyl N-nitro N-nitroguanidine  
 U164—Methylthiouracil  
 U187—Phenacetin  
 U200—Reserpine  
 U202—Saccharin and salts  
 U203—Safrole  
 U206—Streptozotocin  
 U237—Uracil mustard

EPA has grouped these four P wastes and eighteen U wastes together into a single general treatability group, identified as "Pharmaceutical" Wastes. These U and P wastes are complex organic chemicals, many of which are typically generated by the pharmaceutical industry as discarded raw materials, byproducts or off-specification products. While some of these compounds may not be specifically identified as "drugs" and a few are not specifically generated by the pharmaceutical industry, EPA's main reasons for grouping these 22 waste codes together is the relative similarities in structures within this treatability group versus the compounds in the other treatability groups (i.e., all of twenty two of these chemicals are relatively large complex heavily substituted molecules). Eighteen of the twenty two compounds have aromatic rings, nine of which also contain nitrogen or sulfur incorporated into the ring. Six of these wastes include aromatic rings that are fused into polynuclear aromatic structures. All have multiple double bonds and all include oxygen, nitrogen or sulfur atoms.

The Agency has data on incineration of Isosafrole that were used in developing the standards for this treatability subgroup of "pharmaceutical" wastes. The new data from EPA's June, 1989 testing of rotary kiln incineration indicate that Isosafrole can be incinerated to detection limits as

measured in both the ash and scrubber water. Given the size and complexity of these waste molecules, EPA believes they can all be incinerated to the limit of detection in ash and scrubber water and is therefore proposing wastewater and nonwastewater standards based on incineration as BDAT.

Four of these wastes, Isosafrole (U141), Methapyrilene (U155), Phenacetin (U187), and Safrole (U203) are amenable to quantification in treatment residuals by SW-846 methods. EPA is transferring the incineration performance data for Isosafrole to all four of these wastes and thus is proposing concentration-based standards. Although Strychnine (P108) is also amenable to quantification (by Method 8270 of SW-846), EPA is proposing incineration as a treatment standard in order not to stimulate generation of this acutely toxic chemical for use as a calibration reagent.

The Agency is proposing specified methods of treatment for the seventeen remaining "pharmaceutical" wastes which are not amenable to quantification in waste treatment residual matrices. All of these are large molecules with significant branching, less stable than similar polynuclear aromatic hydrocarbons and chlorinated aromatic pesticides known to be effectively treated by incineration. These seventeen chemicals are not amenable to quantification for the following reasons: (1) P007, P075, U010, U015, U035, U059, U089, U143, U150, U164, U200, U202 and U206 are only quantifiable by HPLC methods (Note: EPA rejects HPLC methods for waste treatment residual matrices for reasons discussed in section III.A.1.h.(2.)(a.); (2) calibration reagents are not commercially available for U090 and U237 (see background discussion in III.A.1.h.(2.)(b.); and (3) for P042 or U163 wastes there are no verified SW-846 analytical methods available. The specified methods proposed as wastewater and nonwastewater treatment standards for all "pharmaceutical" U and P wastes are the same as those for all of the organo-nitrogen subcategories. These technologies are presented in section III.A.3.f.(3.) as they relate to organo-nitrogens.

#### BDAT TREATMENT STANDARDS FOR U141, U155, U187 AND U203

##### [Nonwastewaters]

Waste code	Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
U141	Isosafrole.....	2.6
U155	Methapyrilene.....	6.9
U187	Phenacetin.....	16
U203	Safrole.....	22

#### BDAT TREATMENT STANDARDS FOR U141, U155, U187 AND U203

##### [Wastewaters]

Waste code	Regulated Constituent	Maximum for any single grab sample, total composition (mg/l)
U141	Isosafrole.....	0.076
U155	Methapyrilene.....	0.15
U187	Phenacetin.....	0.36
U203	Safrole.....	1.3

\*Note: Alternative standards for these U and P wastewaters are also proposed and are presented in section III.A.7. as standards for the corresponding chemical in wastewater forms of Multi-source Leachate. See background on these alternative standards in section III.A.1.h.(6.)(b.).

#### BDAT TREATMENT STANDARDS FOR P007, P042, P075, P108, U010, U015, U035, U059, U089, U090, U143, U150, U163, U164, U200, U202, U206, AND U237

##### [Nonwastewaters]

##### Incineration as a method of treatment

#### BDAT TREATMENT STANDARDS FOR P007, P042, P075, P108, U010, U015, U035, U059, U089, U090, U143, U150, U163, U164, U200, U202, U206, AND U237

##### [Wastewaters]

Wet air oxidation or chemical oxidation followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration as methods of treatment

#### 4. Proposed Treatment Standards for Ignitable, Corrosive, and Reactive Wastes—a. Introduction. This section of



today's preamble presents a discussion of the proposed treatment standards for ignitable (D001), corrosive (D002), and reactive (D003) characteristic wastes. This section also presents proposed treatment standards for certain U and P wastes that either have the potential to be reactive, particularly in the concentrated form, or are structurally similar to one another. Discussion of the general issues related to all characteristic wastes and an overview of the major options that the Agency considered in proposing treatment standards for all characteristic wastes are presented in sections III.A.1.g. and III.C. of today's preamble.

Ignitable and reactive wastes are already subject to some restrictions on placement in surface impoundments, waste piles, land treatment units, and landfills according to 40 CFR 264.229, 264.256, 264.281, 264.312, 265.229, 265.256, 265.281, and 265.312. Additional requirements for disposing lab packs containing ignitable and reactive wastes in landfills are established in 40 CFR 264.316. Preamble section III.A.4.f. presents a discussion of the impact that today's proposed treatment standards will have on these provisions. When today's proposed rule is promulgated, these wastes are subject to the land disposal restrictions (40 CFR 268) including waste analysis, record keeping, and treatment standards.

(1) *Treatment of All Characteristic Properties.* The use of a specified treatment method for a particular characteristic waste does not necessarily ensure that the residues from this treatment are no longer a characteristic hazardous waste. In other words, treatment for a given characteristic may not, under today's proposal, completely satisfy the requirements to treat other characteristics in the waste or any new characteristics appearing in the treatment residue. For example, ash residues from the incineration of an ignitable waste will no longer be ignitable, but may exhibit the characteristic of EP toxicity for metals (due to the metals concentrating in the ash) even though the waste may not have been EP toxic prior to incineration; this residue may therefore require further treatment.

The Agency expects that residues from treating many corrosive or reactive wastes may exhibit EP toxicity for metals. As discussed in preamble section III.C., the Agency is therefore requiring that no characteristic wastes or their treatment residues may be land-disposed unless the treatment standard for the particular characteristic is above

the characteristic level or the residue has complied with the applicable specified method. Proposed treatment standards for EP toxic metal wastes (D004-D011) are presented in section III.A.5. of today's preamble.

Because of the nature of some subcategories of these D001, D002, or D003 wastes, the Agency is not distinguishing wastewater versus nonwastewater standards in all cases. Sometimes this is because there is no way to physically distinguish one from the other (e.g. D001 compressed gases are neither wastewaters nor nonwastewaters), or sometimes it is prudent to apply the same technology to both wastewaters and nonwastewaters. In other cases, only nonwastewater standards or only wastewater standards are proposed for subcategories of these characteristic wastes. The Agency solicits comment on the potential for generation of forms of these wastes where no standards are specified for that particular form or where the commenter believes that there is a different technology that should be specified.

(2) *Treatment Below Characteristic Levels.* The Agency is proposing two options for treatment standards for wastes in the D001 Ignitable Liquids, D002 Acid, D002 Alkaline, D002 Other Corrosives, D003 Reactive Cyanide, and D003 Reactive Sulfides treatability groups. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004(m). Therefore, the Agency is proposing such standards in particular for wastes in the D001 Ignitable Liquids, D002 Acid, D002 Alkaline, D002 Other Corrosives, D003 Reactive Cyanide and D003 Reactive Sulfides Subcategories. (The specific standards are presented in the respective discussions of the treatability subcategories below.) The Agency is soliciting comment on the option of treating to reach the characteristic level (i.e., removing the characteristic).

These particular subcategories of D001, D002, and D003 wastes are defined by specific testing requirements or narrative standards (i.e., reactive cyanides and reactive sulfides). Thus, the Agency is also proposing a second option of limiting these treatment standards to the respective characteristic levels for these D001, D002, or D003 subcategories only (i.e., other subcategories of these wastes do not have specific testing requirements or

guidance). The Agency specifically solicits comments on these two options.

(3) *Deactivation as a Treatment Standard.* The Agency is proposing a general treatment standard of "Deactivation as a Method of Treatment" for several subcategories of D001, D002, and D003 wastes (i.e., D001 Ignitable Reactives, D001 Oxidizers, D002 Other Corrosives, D003 Explosives, D003 Water Reactives, and D003 Other Reactives). The Agency has determined that within each of these subcategories there appear to be a further variety of different waste groups, each with a certain degree of uniqueness with respect to hazard and handling requirements. Therefore, the Agency believes that the actual method of "Deactivation" chosen for each waste may be specific to that waste and may be best determined by the generator or the treater most knowledgeable as to the waste's unique hazards and handling requirements.

Further, the Agency currently has no information that suggests that one particular technology may be generally applicable to all the wastes within each particular characteristic subcategory, nor that there is one particular technology that can be identified as "Best".

**Note:** This does not preclude the Agency from making such a determination in the future should additional information and data become available.

However, information does suggest that all of these wastes can be treated by some form of deactivation (e.g., open detonation, thermal destruction, specialized incineration, chemical oxidation, chemical reduction, and controlled reaction with water) and that there apparently are no wastes that require land disposal without treatment to remove these particular characteristics (i.e., ignitable reactivity, oxidizing potential, explosivity, water reactivity, and other corrosivity or reactivity).

The Agency considered proposing a "No Land Disposal" standard to these subcategories of wastes; however, some commenters to previous land disposal restriction rules have raised concerns over the effect of these standards. (Note: This concern should be moot, in that, today's notice proposes to revoke all "No Land Disposal" standards that were previously promulgated.) There may be similar concerns that the proposed "Deactivation as a Method of Treatment" is also not a treatment standard per se. As a result, the Agency is proposing an alternative of specifying a treatment standard identified as



"Thermal Destruction, Specialized Incineration, Chemical Oxidation, Chemical Reduction, and Controlled Reaction with Water as Methods of Treatment" for all wastes in the characteristic subcategories identified as D001 Ignitable Reactives, D001 Oxidizers, D002 Other Corrosives, D003 Explosives, D003 Water Reactives, and D003 Other Reactives. The Agency is specifically soliciting comment and data on these technologies (or other technologies) that could assist the Agency in promulgating these as an alternative standard for these particular subcategories of characteristic wastes.

The Agency believes, however, the proposed standard of "Deactivation as a Method of Treatment" provides a needed flexibility in choice of protective treatment technology for the anticipated uniqueness of these wastes at specific sites, while at the same time allowing safe handling procedures for the waste because of their overall "reactive" nature. The Agency believes this is an appropriate approach for these wastes since the hazardous characteristic is based on imminent hazard (e.g., violent reactions and ignition) rather than on other criteria such as levels of hazardous constituents.

The Agency considered another option, that of specifying one technology (e.g., open detonation) for all the wastes that could be included in each subcategory and deal with cases where a waste could not be treated by that technology through the variance procedures of 40 CFR 268.44. The Agency does not prefer this option because of the time and resources that are necessary to process a large number of petitions for a variance from the treatment standard.

Furthermore, there are no known analytical methods to measure the characteristics for which the majority of these wastes are identified, nor a test that distinguishes the reactive chemical from the deactivated chemical in the treatment residues. The Agency solicits comment and data on the proposed overall approach for setting treatment standards for these subcategories of characteristic wastes.

**B. Ignitable Characteristic Wastes.** According to 40 CFR 261.21, there are four criteria for identifying a waste as D001 Ignitable. Paraphrasing these criteria, a waste is a D001 Ignitable if: (1) it is a liquid with a flash point less than 140 °F; (2) it is an ignitable compressed gas; (3) it is not a liquid and is capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes and when ignited burns vigorously and persistently; or (4) it is an oxidizer. EPA

has determined that these four criteria translate directly into four major D001 Subcategories. If a waste is classified as D001 because it fits under more than one D001 subcategory, the waste must be treated by the specified treatment method that is the treatment standard for each applicable subcategory.

(1) *Ignitable Liquids Subcategory.* The first D001 subcategory is described as the Ignitable Liquids Subcategory and refers to those D001 wastes that exhibit the properties listed in § 261.21(a)(1). Data indicate that the majority of all D001 wastes generated fall into this subcategory and are typically described as solvents, paint thinners, contaminated oils, and various organic hydrocarbons.

These wastes are typically classified as nonwastewaters due to their high organic content (usually greater than 1% TOC). The major organic constituents in these wastes are volatile flammable hydrocarbons or oxygenated hydrocarbons that provide the characteristic of ignitability to the waste (i.e., a flash point of less than 140 °F). Some of these organics are water soluble and can theoretically be biodegraded in some wastewater treatment systems. Typically these constituents must be diluted to significantly lower concentrations in the wastewater in order for microorganisms to degrade them. Also, the biodegradation processes often require an aeration step. During the dilution and aeration steps, significant amounts of these volatile organic compounds (VOCs) can be emitted to the air. While biodegradation processes may be applicable for certain D001 Ignitable Liquids, the Agency believes this process is not as protective as thermal destruction technologies.

Thermal destruction technologies such as incineration and reuse as a fuel will completely remove the characteristic of low flash point by completely destroying the VOCs, thereby rendering the waste nonignitable. Based on the fact that these techniques remove the characteristic of ignitability permanently and completely, EPA is proposing a treatment standard of "Incineration, Fuel Substitution, or Recovery as Methods of Treatment" for D001 in the Ignitable Liquids subcategory. This standard will establish incineration, fuel substitution, or recovery as mandatory processes for handling D001 Ignitable Liquids.

The Agency has data showing that the majority of D001 Ignitable Liquids are already treated by incineration, reused as a fuel substitute due to their high BTU content, or recovered for reuse through processes such as distillation. The

Agency does not want to preclude anyone from using distillation or other recovery techniques for these wastes. At the same time, the Agency does not believe that most of these wastes are necessarily recoverable by processes such as distillation. While recovery options may be preferable over incineration or fuel substitution for some of the D001 wastes in this subcategory, the end result is the same. The choice between incineration, fuel substitution, or recovery may then be made by the generator or treater, based on economics and on the ability of the particular recovery system to handle the waste. (Additional discussion on fuel substitution as a treatment method for these wastes is contained in the discussion of national capacity variances in section III.B.)

Some D001 Ignitable Liquids have been shown to contain organic constituents that are also constituents in F001-F005 solvents. The Agency studied the option of transferring the standards for these constituents from the corresponding F001-F005 standards promulgated in the November 7, 1986 final rule (51 FR 40642). However, the Agency believes that this option would create an unnecessary burden on the regulated community in several ways. The majority of D001 wastes in the Ignitable Liquids subcategory probably do not contain these constituents. It seems an unreasonable burden to require generators of D001 wastes to conduct the significant amount of testing and certification required under the land disposal restrictions, when it is likely that constituents are not present. Also, the F001-F005 standards are based on analysis of an extract obtained from use of the TCLP, not on analysis of the total concentration in a representative sample of the waste. Therefore, the Agency prefers to deal with this difference in required testing in a future rulemaking, by establishing treatment standards based on analysis of total constituent concentrations to replace the F001-F005 standards; the new standards could then be transferred to the appropriate wastes in the Ignitable Liquids subcategory. The Agency has not investigated all the technical issues associated with transferring data based on analysis of the TCLP extract to constituents measured by a total waste analysis. Therefore, the Agency is not proposing concentration-based D001 treatment standards based on a transfer of F001-F005 data at this time, although it may reevaluate this decision in the future.

The Agency is currently unable to determine whether any D001 wastes in



this subcategory conform to the definition of wastewaters (i.e., containing less than 1% TOC and 1% TSS) as initially generated. The Agency believes, however, if wastewater forms are generated, the treatment standard proposed for nonwastewaters apply to these wastewaters as well, since the end result will be the removal of the ignitability characteristic and destruction of the hazardous constituents.

**(2) Ignitable Compressed Gases Subcategory.** The second subcategory is classified as the Ignitable Compressed Gases subcategory and refers to those D001 wastes that exhibit the properties listed in § 261.21(a)(3) and meet the definitions in 49 CFR 173.300. The Agency has very limited information on the generation and characterization of D001 wastes in this subcategory, but suspects that while these wastes may be generated, it is unlikely that they require placement in any type of land disposal unit. The Agency believes that there are no gas cylinders containing compressed ignitable gases placed in surface impoundments, and that it is physically impossible to dispose them by means of deep well injection. Some cylinders containing D001 ignitable gases may be placed in waste piles; however, such placement of a container in a storage unit is not land disposal under section 3004(k). In addition, these types of cylinders are usually returned to distribution facilities to be refilled. The Agency does not intend to prevent short-term storage of cylinders prior to refilling.

The Agency considered several options for proposing treatment standards for compressed ignitable gases. The preferred option is that of recovery by direct reuse, since typically, the cylinders are directly refilled. A second option is incineration by venting the gas into an incinerator. There may be cases when it is preferable to vent the gas into an appropriate adsorbent material (provided that air emissions can be controlled), and then incinerate the adsorbed gas/adsorbent material combination to permanently remove the characteristic, because this would reduce the risk of explosion. The Agency is not proposing to specify fuel substitution as a method because it knows too little about these wastes. EPA will reconsider this question if additional data adequately characterizing these wastes are submitted.

Today, the Agency is proposing a treatment standard of "Recovery or Incineration of Vented Ignitable Gases" for these wastes. This treatment

standard will apply to all forms of the Ignitable Compressed Gases, since the definitions of wastewater and nonwastewater do not apply to this group of wastes (see section III.A.1.g of today's preamble).

**(3) Ignitable Reactives Subcategory.** The third subcategory is classified as the Ignitable Reactives subcategory and refers to those D001 wastes that exhibit the properties listed in § 261.21(a)(2). D001 wastes in the Ignitable Reactives subcategory are primarily inorganic solids or wastes containing reactive materials. These include materials such as reactive alkali metals or metalloids (such as sodium and potassium) and calcium carbide slags. All of these are very reactive with water and will generate gases that can ignite due to heat generated from the reaction with water. Other ignitable solids in this subcategory include metals such as magnesium and aluminum that, when finely divided, can vigorously react with the oxygen in the air when ignited.

There appears to be an overlap between wastes in this D001 subcategory and certain D003 (characteristic of reactivity) wastes. A close examination of the definitions in § 261.21(a)(2) for ignitable wastes and §§ 261.23(a)(2), (3) and (6) for reactive wastes reveals the distinction between these two groups. The key difference is in the definition of ignitable wastes which states: " \* \* \* when ignited, burns vigorously and persistently." This phrase implies that the hazard is due primarily to the ignition potential rather than to the extreme reactivity.

D001 Ignitable Reactives are generated on a sporadic basis and generally in low volumes. They typically are not placed in surface impoundments because they often react with water, thus creating a fire hazard. Current management practices for some of these wastes, such as calcium carbide slag, involve placing the wastes in specially designed units for the purpose of controlled deactivation with water. EPA has determined previously that such deactivation does not constitute land disposal. See 51 FR at 40577 (Nov. 7, 1986) and 52 FR 21011 (June 4, 1987). Thus, this treatment practice is permissible. Where residues from deactivation in land disposal units (such as waste piles) leave an EP toxic residue on the land (within the meaning of section 3004(k)), a different method of deactivation may be necessary. EPA solicits comment on this point, including comment regarding implications for availability of adequate treatment capacity pursuant to the section 3004(h)(2) determination.

Other D001 Ignitable Reactives, such as those containing reactive alkali metals (sodium or potassium) are sometimes open-detonated. The Agency also has data indicating that these wastes are sometimes chemically deactivated.

Radioactive zirconium fines that are pyrophoric under 40 CFR 261.21(a)(2) (i.e., that cause fire through friction) have been included in this D001 subcategory. The Department of Energy submitted data that appears to indicate that this waste can be stabilized to remove the reactivity characteristic. Stabilization is not usually considered to be a method of deactivation, and EPA is concerned that this treatment may be a form of impermissible dilution rather than a chemical reaction (i.e., oxidation) that removes the reactivity characteristic. The Agency solicits comment and additional data on whether stabilization is appropriate for radioactive zirconium fines. Furthermore, the Agency requests comment on whether stabilization is an appropriate deactivation treatment for all zirconium fine wastes, as well as for the other reactive metals.

The Agency is proposing a treatment standard of "Deactivation as a Method of Treatment" for wastes in the D001 Ignitable Reactive subcategory. The Agency believes this is an appropriate approach for these wastes since the hazardous characteristic is based on imminent hazard (i.e., ignition and violent reaction) rather than on other criteria such as levels of hazardous constituents, and that technologies exist that can completely remove this characteristic. A more complete discussion of the implications of this standard is presented in section III.A.4.a.(2.) above, as well as an alternative proposed standard for wastes in this subcategory.

**(4) Oxidizers Subcategory.** The fourth subcategory is classified as the Oxidizers subcategory and refers to those D001 wastes that exhibit the properties listed in § 261.21(a)(4) and meet the definitions in 49 CFR 173.151. D001 wastes in the Oxidizers subcategory are primarily inorganic, and include such things as waste peroxides, perchlorates, and permanganates. The Agency has very limited information on the generation and characterization of D001 wastes in this subcategory. It is possible that certain aqueous solutions of these oxidizers may be useful in the treatment of other hazardous wastes. These wastes must, however, be used as treatment reagents in tanks and not in surface impoundments due to the potential release of heat and volatile



organics during the oxidation/reduction reactions (see 40 CFR 264.229 and 265.229).

The Agency is proposing a treatment standard of "Deactivation as a Method of Treatment" for wastes in the D001 Oxidizers Subcategory. The Agency believes this is an appropriate approach for these wastes since the hazardous characteristic is based on imminent hazard (i.e., oxidizers can react violently with organics or other materials and result in the rapid generation of fires) rather than on other criteria such as levels of hazardous constituents, and that technologies exist that can completely remove this characteristic. A more complete discussion of the implications of this standard is presented in section III.A.4.a.(2.) above, as well as an alternative proposed standard for wastes in this subcategory.

(5) *Need to Treat Rather Than Dilute Ignitable Wastes.* In section III.D. below, EPA discusses the issue of dilution to remove a characteristic and proposes that a prohibited form of dilution that is used to remove a characteristic from a prohibited hazardous waste would be a violation of the dilution prohibition in section 268.3. In this section the Agency addresses policy concerns that lead to the conclusion that dilution is not automatically a legitimate mode of treatment of ignitable wastes (and therefore is not a prohibited form of dilution for purposes of the section 268.3 dilution prohibition).

On first impression, one might assume that it does not matter how the ignitability characteristic is removed so long as the waste ends up non-ignitable. Ignitability, however, reflects presence of volatile organic compounds (VOC), which are ozone precursors. If ignitable wastes are diluted, VOC will ordinarily be emitted in concentrations far exceeding those emitted by treatment processes in which these volatiles are destroyed. Control of VOC is a legitimate concern under RCRA (section 3004 (m)) specifically calls for minimizing threats to the environment as well as to human health, and the Agency has specifically called attention to control of VOC in the 1987 proposed rule implementing RCRA section 3004 (n)). Volatile emissions from dilution also may pose a reignition hazard. Dilution of ignitable wastes also fails to utilize the wastes' energy value, contravening a fundamental RCRA goal of encouraging recovery of energy from wastes (RCRA section 1002 (d)). EPA also believes that allowing dilution of D001 wastes will create an incentive for generators to miscode the listed,

prohibited solvent wastes (F001-F005) as D001 wastes, frustrating the treatment requirements for those wastes.

Accordingly, the Agency believes that dilution should not be a legitimate method for treating ignitable wastes. Commenters on this point should address policy reasons for allowing dilution as treatment, or identify circumstances when dilution may occur as a legitimate adjunct to treatment.

#### BDAT TREATMENT STANDARDS FOR D001 IGNITABLE LIQUIDS 261.21(a)(1)

Incineration; Fuel Substitution; or Recovery as  
Methods of Treatment

#### BDAT TREATMENT STANDARDS FOR D001 IGNITABLE COMPRESSED GASES 261.21(a)(3)

Incineration of Vented\* Ignitable Gases; or Recovery  
as Methods of Treatment

\*Ignitable gases may be vented directly into an incinerator or vented into a suitable adsorbent prior to incineration. Although the gases, once vented, are no longer compressed in a cylinder the Agency does not consider that treatment has occurred until the ignitable gas has been incinerated. Adsorption of the ignitable gas into either a solid or liquid adsorbent is typically a reversible physical process. Thus, the ignitable chemical has not been destroyed.

#### BDAT TREATMENT STANDARDS FOR D001 IGNITABLE REACTIVES 261.21(a)(2)

Deactivation as a Method of Treatment

#### BDAT TREATMENT STANDARDS FOR D001 OXIDIZERS 261.21(a)(4)

Deactivation as a Method of Treatment

*C. Corrosive Characteristic Wastes.* Paraphrasing the criteria for defining a waste as a D002 Corrosive waste (40 CFR 261.22), a waste can be a D002 waste if it is aqueous and has a pH less than or equal to 2, or greater than or equal to 12.5; or it is a liquid and corrodes steel at a specified rate and temperature. EPA determined that these criteria translated into three subcategories for D002 wastes, the Acid Subcategory, the Alkaline Subcategory, and the Other Corrosives Subcategory.

(1) *D002 Acid and Alkaline Subcategory.* The Acid Subcategory and the Alkaline Subcategory, refer to those D002 wastes that exhibit the properties

listed in 40 CFR 261.22(a)(1) and are distinguishable by the appropriate pH specifications. The Acid subcategory is defined as those wastes with a pH of less than or equal to 2.0, and the Alkaline Subcategory is defined as those with a pH of greater than or equal to 12.5. Also by definition, D002 wastes in these two subcategories only include wastes which are considered to be "aqueous", due to the fact that standard pH measurements can only be performed in the presence of significant amounts of water (i.e., pH is the measure of the concentration of hydronium ions in water).

D002 wastes in the Acid subcategory typically include concentrated spent acids, acidic wastewaters, and spent acid strippers and cleaners. Wastes in the Alkaline subcategory typically include concentrated spent bases, alkaline wastewaters, and spent alkaline strippers and cleaners. D002 wastes represent a significant portion of all hazardous wastes generated by almost every industry.

The Agency believes that many D002 wastes in both the Acid and Alkaline subcategories are already being treated by chemical neutralization. These subcategories have been defined as hazardous due to their extremes in pH; therefore, any chemical neutralization technology will completely remove the extremes of pH and thereby render the waste noncorrosive. The choice of neutralizing reagents are dependent upon the subcategory of the waste, i.e., the acid wastes will require bases for neutralization and alkaline wastes will require acids.

Based on this, EPA is proposing a treatment standard of "Base Neutralization to pH 6-9 and Insoluble Salts" for the D002 Acidic Subcategory. Likewise, EPA is proposing a treatment standard of "Acid Neutralization to pH 6-9 and Insoluble Salts" for the D002 Alkaline Subcategory.

Neutralization with chemicals is not the same as simple dilution to achieve a neutral pH. While dilution will change the pH (i.e., the concentration of the hydronium ions), neutralization with chemicals involves a chemical reaction. Dilution is merely the addition of significant quantities of water in order to arrive at a neutral pH with the anions associated with the acid (or base) remaining in solution. Neutralization with acids or bases involves a reaction which utilizes a chemical change to achieve neutral pH with the anions either remaining in solution or precipitating as a sludge.

The Agency is proposing a range of pH 6 to 9 instead of the characteristic



range of pH 2-12.5 for several reasons. First, hydronium ions from acids solubilize metals from clay liners, impacting their ability to act as barriers to migration. Moreover, acid wastes between pH 2 and 6 can increase the mobility of many hazardous constituents in groundwater relative to wastes in the pH range of 6 to 9. Another reason the Agency is proposing this range because this matches the buffering of natural aquatic systems based on carbonate/bicarbonate pH relationship (i.e., pH 5.5 and 8.5 are carbonate/bicarbonate pH levels indicating what is referred to as the acidity and alkalinity (respectively) of an aqueous environmental sample).

The Agency notes, however, that the pH range of 6 to 9 may not be appropriate for deep well injection into certain formations. A different pH range may be specified in permits to ensure that injected fluid flows properly through the injection zone without plugging. Moreover, deep well injection zones are not near surface aquatic ecosystems. The Agency does not want to create anomalous results in the context of injected wastes and solicits comments on whether any pH range specified in an underground injection control permit should supercede the proposed treatment standard range of pH 6 to 9.

The Agency prefers neutralization of corrosive wastes over simple dilution because dilution simply creates a larger volume of wastes but does not treat or remove hazardous constituents in the wastes. Moreover, neutralization is more conservative of natural resources and more protective of aquatic ecosystems. An example of how neutralization conserves natural resources (i.e., water) is shown in the following scenario. Dilution of one gallon of the most frequently used industrial acid, concentrated sulfuric acid, to a pH of just above 2 requires 3,600 gallons of water. Dilution to completely neutralize the concentrated sulfuric acid to a level that is expected to have no ecological impact on fresh water systems would require 360,000,000 gallons of water. On the other hand, one gallon of this acid can be neutralized to pH 7 with only 12 pounds of caustic (sodium hydroxide) or only 11 pounds of lime (calcium hydroxide). Treatment to achieve pH 2 actually requires slightly less caustic or lime; however, the amount is not substantially less than the amount required to neutralize to pH 7.

The Agency recognizes, however, that dilution in order to facilitate treatment may be necessary (i.e., the added water serves as a heat sink that is necessary to control very exothermic reactions or

toxic air emissions). Dilution in order to facilitate treatment is not prohibited (see sections III.A.1.g. and III.H. for further discussion of dilution of characteristic wastes).

When selecting neutralization reagents, it is important to consider the solubility of the salts produced as a result of neutralization. This is illustrated by the following scenario. Chemical neutralization of one gallon of concentrated sulfuric acid with caustic (sodium hydroxide) results in 22 pounds of dissolved salts (in the form of sodium sulfate) that, if improperly managed, could adversely impact fresh water ecosystems. However, chemical neutralization with lime (calcium hydroxide) results in 19 pounds of relatively insoluble, nontoxic sludge which would have to be land disposed or otherwise recovered. (This solid waste could potentially be recycled or reused depending upon other constituents such as metals that may co-precipitate along with the solids.) In fact, data from the Toxic Release Inventory (TRI) indicates that sodium sulfate is the chemical being discharged in largest volumes to surface water. Therefore, the Agency prefers to neutralize D002 wastes such that relatively nontoxic solid wastes are generated rather than wastewater discharges with high dissolved solid contents that could potentially have adverse impacts on fresh water ecosystems. This is further illustrated by the discharge of soluble nitrate (from either neutralization or dilution of nitric acid, the second largest acid used in industry) and soluble phosphate (from phosphoric acid). Both of these ions are considered nutrients to aquatic ecosystems and at low levels contribute to the overall growth of fresh water ecosystems. However, the discharge of excessive amounts (or slugs of concentrations) of these ions could expedite algal growth and adversely impact the balance of the ecosystems.

It is important to point out that when neutralizing some concentrated acids such as nitric acid, the point that the acid enters the treatment reactor should be under the surface of water to avoid possible toxic gas generation (i.e., NO<sub>x</sub>). Some facilities generate waste streams which fluctuate from the Acid subcategory to the Alkaline subcategory depending upon what process is used on a given day. These facilities might be able to utilize these fluctuations in pH as a means of performing on-site neutralization.

(2) *Recoverable Acids.* Recovery options have been demonstrated for a variety of corrosive wastes. The Agency

prefers recovery as a treatment standard, in that it results in no discharge of acidic constituents into the environment and conserves resources. The legislative history of the land disposal restriction provisions also indicates that recovery is the preferred management alternative. The Agency lacks waste characterization data which indicates the wastes that are most amenable to recovery, therefore, the Agency is establishing for this subcategory "Recovery as a Method" as the treatment standard. The choice between neutralization and recovery may be made by the generator or the centralized treatment operation, according to the applicability and performance of a given type of acid/base recovery system.

By establishing these treatment standards, the Agency is leaving open the opportunity to the regulated community to apply for a variance from the treatment standard to account for D002 wastes which cannot be effectively neutralized or recovered (40 CFR 268.44). Such a situation could occur for small quantities of corrosive materials that contain extremely toxic or otherwise hazardous chemicals that may cause an unnecessary risk during neutralization.

The Agency promulgated regulations for liquid hazardous wastes having a pH of less than or equal to 2.0 in the California list final rule (52 FR 25760, July 8, 1987) by codifying this statutory pH level into 40 CFR 268.32. This regulation, however, is not adequate to address the universe of D002 wastes. The California list restrictions apply only to liquid corrosive wastes without specifically identifying them as D002 wastes. Furthermore, the California list final rule did not specify neutralization as a required treatment standard; in fact, the waste may be merely rendered nonliquid prior to land disposal and still satisfy the California list requirements. Therefore, the Agency is today proposing treatment standards for D002 wastes that will supercede the California list regulations because they are more specific. (Note the discussion in section III.M., however, regarding continued applicability of the California list prohibitions during the periods of a national capacity variance.)

(3) *Other D002 Corrosives.* The third major subcategory is classified as the Other Corrosives subcategory and is defined as those D002 wastes that exhibit corrosivity to steel as defined in § 261.22(a)(2). They often are nonaqueous corrosive wastes such as certain organic liquids, but can represent inorganic chemicals as well.



Wastes in the Other D002 Corrosives subcategory are generated on a sporadic basis and generally in low volumes. The Agency suspects that these wastes are often identified as corrosive without performing the specified testing with steel (i.e., the corrosivity of the waste may be assumed due to the presence of known corrosive constituents). This may also be due, in part, to the high cost of testing and to the difficulties in identifying laboratories that are experienced in steel corrosion testing.

The physical and chemical characteristics of this group of wastes vary greatly. The wastes may be aqueous or they may be primarily organic. In addition, a large variety of corrosive chemicals may appear as constituents in this type of corrosive waste. Depending on the concentration of these corrosive chemicals, they may corrode SAE 1020 steel. Examples of chemicals that may contribute to corrosivity include ferric chloride, benzene sulfonyl chloride, benzotrichloride, acetyl chloride, formic acid, hydrofluoric acid, some catalysts, various resins, metal cleaners, and etchants. Highly concentrated acids that have no water content may also be included in this subcategory, since pH measurements are not possible on these wastes.

Wastes in the Other Corrosives subcategory are often treated by deactivating the corrosive constituents of the waste with an appropriate chemical reagent. Wastes that contain high concentrations of corrosive organics are often incinerated, however. Due to the great variety of potential corrosive organics, the Agency does not believe that it should establish concentration-based standards based on incineration for these D002 wastes. Removal and recovery of either organic or inorganic corrosive constituents may also be applicable technologies, since recovery could extract the corrosive constituents until the waste itself is no longer corrosive to steel.

EPA is proposing a treatment standard of "Deactivation: SAE 1020 Steel Corrosion Rate <6.35 mm/yr" for D002 wastes in the Other Corrosives subcategory. The Agency believes this is an appropriate approach for these wastes since the hazardous characteristic is based on imminent hazard (i.e., the corrosivity to steel may cause rupture of a tank or container, thus releasing the contents either suddenly or through leaks) rather than on other criteria such as levels of hazardous constituents, and that technologies exist that can completely remove this characteristic. A more

complete discussion of the implications of this standard is presented in section III.A.4.a.(2.) above, as well as an alternative proposed standard for wastes in this subcategory.

The Agency is soliciting comments and data on the physical and chemical characterization of all three subcategories of D002 wastes, as well as on the applicability of chemical deactivation and recovery. Facilities with D002 wastes that are not amenable to neutralization or deactivation techniques should submit data on the characteristics of their wastes and technically justify why they are not amenable to neutralization or deactivation early in the comment period for this proposal.

#### BDAT TREATMENT STANDARDS FOR D002 ACID SUBCATEGORY 261.22(a)(1)

Neutralization with Bases to:  $6 < \text{pH} < 9$  and Insoluble Salts; or Recovery as a Method of Treatment

#### BDAT TREATMENT STANDARDS FOR D002 ALKALINE SUBCATEGORY 261.22(a)(1)

Neutralization with Acids to:  $6 < \text{pH} < 9$  and Insoluble Salts; or Recovery as a Method of Treatment

#### BDAT TREATMENT STANDARDS FOR D002 OTHER CORROSIVES 261.22(a)(2)

Deactivation to: SAE 1020 Steel Corrosion Rate <6.35 mm/yr as a Method of Treatment

*d. Reactive Characteristic Wastes.* According to 40 CFR 261.23, there are eight criteria for defining a waste as a D003 Reactive waste. Paraphrasing these criteria, a waste can be a D003 waste if: (1) It is unstable and readily undergoes violent changes without detonating; or (2) it reacts violently with water; or (3) it forms potentially explosive mixtures with water; or (4) when mixed with water, it generates toxic gases; or (5) it is a cyanide or sulfide bearing waste which under certain conditions can generate toxic gases; or (6) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement; or (7) it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or (8) it is a forbidden explosive, a Class A explosive, or a Class B explosive.

EPA determined that these eight criteria translated into five subcategories for D003 wastes. The first subcategory is classified as the Reactive Cyanides subcategory and refers to those D003 wastes that exhibit the properties listed in § 261.23(a)(5) for cyanide. The second subcategory is classified as the Explosives subcategory and refers to those D003 wastes that exhibit the properties listed in §§ 261.23(a)(6) through 261.23(a)(8). The third subcategory is classified as the Water Reactive subcategory and refers to those D003 wastes that exhibit the properties listed in §§ 261.23(a)(2) through 261.23(a)(4). The fourth subcategory is classified as the Reactive Sulfides subcategory and refers to those D003 wastes that exhibit the properties listed in § 261.23(a)(5) for sulfide. The fifth subcategory is classified as the Other Reactives subcategory and refers to those D003 wastes that exhibit the properties listed in § 261.23(a)(1).

All of the known treatment processes for the five D003 subcategories can result in significant amounts of solid residues. These residues may or may not exhibit the characteristic of EP toxicity for metals. As discussed in preamble section III.C., no residue which is a characteristic waste may be land disposed unless the treatment standard is a level above the characteristic level or the residue has otherwise complied with the applicable specified methods.

For all subcategories of D003 wastes except the Reactive Cyanides, the Agency believes that development of concentration-based treatment standards would be difficult because there are no known analytical tests that are specifically designed to measure the particular reactivity associated with each D003 treatability subcategory, nor is there a test that distinguishes the reactive chemical from the deactivated chemical (e.g., sodium is always measured as "total").

The Agency is soliciting comments and data on the physical and chemical characterization of all five subcategories of D003 wastes. The Agency also requests comment on the applicability of chemical deactivation, incineration, open detonation, and any other type of chemical or physical deactivation technology to these wastes. Facilities with D003 wastes that are not amenable to treatment using these technologies should submit data on the characteristics of their wastes and technically justify why they are not amenable to the proposed treatment methods early in the comment period for this proposal.



(1) *Reactive Cyanides.* D003 wastes in the Reactive Cyanides subcategory are by definition those cyanide-bearing wastes that generate toxic gases (assumed to be hydrogen cyanide) when exposed to pH conditions between 2 and 12.5, in a sufficient quantity to present a danger to human health and the environment. The Reactive Cyanide wastes typically are generated by the electroplating and metal finishing industries, and include mixed cyanide salts, cyanide solutions, and cyanide-bearing sludges. Most of the volume of all D003 wastes that are generated can be identified as the Reactive Cyanides subcategory. Reactive cyanide wastes are not typically placed directly in most types of land disposal units without treatment; however, it is possible that some are placed in surface impoundments.

Reactive Cyanide wastes are already subject to special requirements prior to disposal in landfills, surface impoundments, and waste piles under existing regulations. Also, as of July 8, 1987 (the statutory deadline for the California list prohibitions), liquid hazardous wastes having a free cyanide concentration in excess of 1,000 mg/kg (ppm) were prohibited from land disposal. These existing regulations and prohibitions are insufficient, however, to apply to the Reactive Cyanides subcategory. The statute did not specifically identify the California list cyanides as D003 wastes, and furthermore, it did not specify a required method of treatment, nor did it establish the 1,000 mg/kg prohibition level as a "treatment standard".

The Agency is proposing to transfer concentration-based treatment standards for total and amenable cyanides from treatment standards developed in the Second Third final rule (54 FR 26594, June 23, 1989) for P030 nonwastewaters, to the Reactive Cyanides subcategory. The Agency believes that D003 wastes resemble P030 rather than the cyanide-containing F006-F009 wastes because D003 wastes are described as "reactive" cyanides and P030 is listed as "soluble" cyanides. Soluble cyanides are most likely to be reactive because they are dissolved. Reactive Cyanides are thus expected to be easily treated by treatment technologies such as alkaline chlorination and wet air oxidation to meet today's proposed treatment standard for total cyanide of 110 mg/kg and amenable cyanide of 9.1 mg/kg. (Note: The treatment standards for P030 were developed based on a transfer from data on the treatment of an F011 waste containing low levels of iron and

high levels of simple, soluble cyanides (i.e., low levels of complexed cyanides). However, the principle of relating P030 wastes, i.e., "soluble" cyanides, to D003 "reactive" cyanides remains essentially the same.)

The Agency is also proposing that if data are submitted in public comments that clearly indicate that D003 wastes in the Reactive Cyanides subcategory more closely resemble F006 wastes containing high concentrations of iron or other complexed cyanide, the Agency will promulgate the higher F006 treatment standards for cyanides that were established in the Second Third rule which reflect the presence of iron cyanide complexes. The Agency believes that F006 wastes containing high concentrations of iron represent wastes that are more difficult to treat than those containing only reactive cyanides (or those containing low concentrations of iron). Thus, if D003 Reactive Cyanides are shown to be more similar to F006, they will be subject to a total cyanide level of 590 mg/kg and an amenable cyanide level of 30 mg/kg.

The Agency will not promulgate the higher (i.e., F006) treatment standards for D003 Reactive Cyanides unless the data clearly indicate that the wastes are not merely mislabeled F006, F007, F008, F009, F010, F011, F012, F019 or P cyanide wastes. The Agency suspects that some generators are currently misclassifying these wastes as D003. The Agency believes that this is primarily an issue for enforcement. However, by promulgating the lower treatment standards (transferred from P030) for D003 Reactive Cyanides, proper identification of the F and P cyanide wastes will be encouraged. Of greater importance is the fact that the Agency believes that *soluble* cyanide wastes (e.g., P030) and wastes containing low iron (e.g., some F011) are more likely to be similar to D003 Reactive Cyanides, so that the lower cyanide standards are achievable and therefore would apply. (See also section III.A.6.(a) of today's preamble for a further discussion of proposed cyanide treatment standards for other wastes and a proposed clarification of the analytical methodology for compliance with the promulgated standards.)

(2) *Reactive Sulfides Subcategory.* D003 wastes in the Reactive Sulfides subcategory are by definition those sulfide-bearing wastes that generate toxic gases (assumed to be H<sub>2</sub>S) when exposed to a pH between 2 and 12.5, in a sufficient quantity to present a danger to human health and the environment. The Agency is in the process of

developing a quantitative threshold for toxic gas generated from reactive sulfide wastes. The interim value the Agency is considering is 500 mg of H<sub>2</sub>S generated per kilogram of waste. Although this number is only an interim guideline, for the purpose of BDAT determinations the Agency is proposing to use this number to identify the wastes in this subcategory (given the need for an objective means of determining the subcategory's applicability).

Reactive sulfides may be treated and chemically converted to relatively inert sulfur, to insoluble metallic sulfide salts, or to soluble sulfates that can be removed or recovered. Some data indicate that these wastes can be treated by alkaline chlorination, specialty incineration, or other chemical deactivation techniques. The Agency believes that some of these wastes may also be contaminated with organic sulfides known as mercaptans. These malodorous chemicals are believed to complicate the treatment of these reactive sulfide wastes. It is believed that these wastes have posed particular treatment problems for the petroleum refining industry and the paper and pulp industry.

The Agency is proposing a treatment standard of "Alkaline Chlorination, Chemical Oxidation, or Incineration Followed by Precipitation to Insoluble Sulfates" for the Reactive Sulfide subcategory. (Note: While alkaline chlorination is a form of chemical oxidation, the Agency did not want to specifically preclude the use of any particular oxidant.) The treatment standard is expressed as a required method of treatment rather than as a concentration-based standard because the Agency has not approved a standard analytical method for testing either sulfides or "reactive" sulfides in hazardous wastes or in treatment residues (however, as noted above, the Agency is working to develop a quantitative threshold for reactive sulfides). The Agency solicits waste characterization and treatment data that could potentially be used to develop concentration-based treatment standards for these wastes.

(3) *Explosives subcategory.* D003 wastes in the Explosives subcategory are by definition those wastes that are capable of detonation or explosive reaction under various conditions, or are forbidden, Class A, or Class B explosives (according to 49 CFR 173.52, 173.53, and 173.88 respectively). These wastes have typically been identified as being generated by the explosives industry and by the U.S. Department of Defense. While these wastes are not



generated as frequently as the Reactive Cyanides, they are generated more often than all other Reactive subcategories. Explosives are already subject to special requirements prior to disposal in landfills, surface impoundments, and waste piles under existing regulations. These explosive wastes are not typically placed in most types of land disposal units; rather, they are treated by either open burning, open detonation, or incineration in specially designed units. Such treatment is expected to permanently remove the explosive characteristic of this D003 waste.

Incineration also appears to be an applicable technology, so long as the incineration units must be specially designed and fitted with explosion-proof equipment. Such units are not typically found at commercial incineration facilities. The Agency is aware that these types of units are currently used by the Department of Defense to treat explosive wastes, and there appears to be a decrease in reliance on open detonation. Due to the large number of explosive formulations and the difference in applicable treatments (see Department of the Army Technical Manual TM9-1300-214, Military Explosives) the Agency is proposing a general standard of "Deactivation as a Method of Treatment" for the D003 Explosives subcategory. By establishing this standard, the Agency is allowing the regulated community to use that treatment technology (e.g., incineration, chemical deactivation) that best fits the type of explosive waste. The Agency believes this is an appropriate approach for these wastes since the hazardous characteristic is based on imminent hazard (i.e., explosivity) rather than on other criteria such as levels of hazardous constituents, and that technologies exist that can completely remove this characteristic. A more complete discussion of the implications of this standard is presented in section III.A.4.a.(2.) above, as well as an alternative proposed standard for wastes in this subcategory. (See also the Background Document for Characteristic Wastes for more information on explosive waste characterization.)

(4) *Water Reactive and Other Reactives Subcategories.* D003 wastes in the Water Reactive or Other Reactives subcategories can be either organic or inorganic. Water Reactive D003 wastes are either very reactive with water, or can generate toxic or explosive gases with water. These reactions are usually very vigorous and therefore difficult to control. Wastes in both of these

subcategories are generated on a sporadic basis and generally in low volumes. These wastes are not typically placed in land disposal units nor are they placed in surface impoundments due to their violent reactivity.

The Agency has information that suggest that some water reactives are being open detonation. It is theorized that the reactive organic constituents are destroyed by the explosion, and the reactive inorganic constituents form less hazardous oxides or react with other chemicals in the explosion (such as moisture from the air).

In today's notice, the Agency is proposing a general standard of "Deactivation as the Method of Treatment" for the D003 Water Reactives and Other Reactives subcategories. The Agency believes this is an appropriate approach for these wastes since the hazardous characteristic is based on imminent hazard (i.e., potential violent reactions with water) rather than on other criteria such as levels of hazardous constituents, and that technologies exist that can completely remove these reactive characteristics. A more complete discussion of the implications of this standard is presented in section III.A.4.a.(2.) above, as well as an alternative proposed standard for wastes in these subcategories.

(5) *Treatment of Reactive Wastes Does Not Automatically Include Dilution.* As discussed with respect to ignitable wastes, EPA is proposing to classify dilution that removes a prohibited waste's characteristic as impermissible in certain circumstances (see section III.D. below). This part of the preamble addresses why dilution of reactive wastes should not automatically be considered to be a legitimate form of treatment.

For reactive wastes that contain cyanide or sulfides, the dilution prohibition should clearly apply for the same reason that it applies to any toxic waste. Indeed, the legislative history to the treatment standard provision states specifically that cyanides should be destroyed. 130 Cong. Rec. S 9178-79 (July 25, 1984) (statement of Sen. Chafee). With respect to other reactive wastes, most cannot be diluted without violent reaction so that dilution is not a viable management alternative in any event. It thus is the Agency's view that dilution is not automatically a permissible means of treating reactive hazardous wastes.

#### BDAT TREATMENT STANDARDS FOR D003 REACTIVE CYANIDES 261.23(a)(5)

[Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Cyanides (Total).....	110
Cyanides (Amenable).....	9.1

#### BDAT TREATMENT STANDARDS FOR D003 REACTIVE CYANIDES 261.23(a)(5)

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cyanides (Total).....	1.9
Cyanides (Amenable).....	0.10

#### BDAT TREATMENT STANDARDS FOR D003 REACTIVE SULFIDES 261.23(a)(5)

Alkaline chlorination, chemical oxidation, or incineration followed by precipitation to insoluble sulfates as methods of treatment

#### BDAT TREATMENT STANDARDS FOR D003 EXPLOSIVES, WATER REACTIVES, AND OTHER REACTIVES 261.23(a)(6), 261.23(a)(2) THROUGH (4), AND 261.23(a)(1) RESPECTIVELY

Deactivation as a method of treatment

*e. Effect of Treatment Standards on Disposal Provisions in 40 CFR 264 and 265 for Ignitable and Reactive Wastes.* Management practices have been established for ignitable and reactive wastes in surface impoundments, waste piles, land treatment units, and landfills (see 40 CFR 264.229, 264.256, 264.281, and 264.312, as well as 265.229, 265.256, 265.281, and 265.312). When finalized, the treatment standards proposed today for ignitable (D001) and reactive (D003) wastes will supersede the above-mentioned provisions and exclusions for permissible land disposal of these waste outlined in Part 264 and 265; therefore, the Agency is proposing to amend these sections to reflect the new regulations in Part 268. Facilities handling ignitable and reactive wastes will have to comply with the promulgated treatment



standards for these wastes in order to land dispose them.

*f. U and P Wastes That are*

*Potentially Reactive.* These wastes were grouped together because they are either highly reactive or explosive, or they are polymers that tend to be highly reactive. These wastes pose a significant risk during handling due to their reactivity; this is reflected in the fact that there are no standard SW-846 methods for analyzing reactivity. Because of the difficulties in handling and analyzing these wastes, the Agency is proposing treatment standards expressed as required methods of treatment (thus eliminating the need to analyze treatment residues).

The Agency investigated several options for developing treatment standards for these wastes, including incineration, open burning, open detonation, and chemical deactivation. Most of these wastes are currently managed by incineration. Other wastes included in this group can be recovered or recycled.

For the purpose of BDAT determinations, the Agency has identified four subcategories according to similarities in treatment, chemical composition, and structure. These groups are: (1) Incinerable Reactive Organics and Hydrazine Derivatives; (2) Incinerable Inorganics; (3) Fluorine Compounds; and, (4) Recoverable Metallics. The discussion of the treatment standards applicable to each subcategory are as follows.

*(1) Incinerable Reactive Organics and Hydrazine Derivatives.*

P009—Ammonium picrate  
P081—Nitroglycerin  
P112—Tetranitromethane  
U023—Benzotrithloride  
U096—*a,a*-Dimethyl benzyl hydroperoxide  
U103—Dimethyl sulfate  
U160—Methyl ethyl ketone peroxide  
P068—Methyl hydrazine  
U086—*N,N*-Diethylhydrazine  
U098—1,1-Dimethylhydrazine  
U099—1,2-Dimethylhydrazine  
U109—1,2-Diphenylhydrazine  
U133—Hydrazine

Incineration represents BDAT for the wastes in this treatability group. Data indicate that these wastes are currently incinerated by commercial, as well as military facilities. The Agency does not believe, however, that concentration-based treatment standards based on incineration can be established for these wastes at this time. The major problems in establishing concentration-based standards for these wastes are: (1) EPA does not currently have an analytical method for measuring many of these wastes in treatment residues; and (2) where the Agency does have methods,

there are no data available on the treatment of these chemicals. In cases when there is no verified analytical method for a particular waste, EPA tries to find an appropriate measurable surrogate or indicator compound; however, no constituent has been identified in these wastes that could be used as a surrogate or indicator compound. (See section III.A.1.h.(2) for a detailed discussion of analytical problems.)

One of the specific problems encountered in analysis of P068, P112, U023, U098, U099, and U103 is that these wastes break down quickly in water (hydrolyze) and that the analysis of wastewater forms of these wastes is very difficult as well as often hazardous due to the intensity of the reaction. See further discussion on the impact of instability in water on the development of treatment standards in section III.A.1.h.(2)(c.) of today's notice. In addition, the Agency lacks data on what effects the hydrolysis products would have on the environment. Besides, verified analytical methods do not currently exist for the quantification of these hydrolysis products in treatment residues.

Another analytical problem is created because P081 wastes are only quantifiable by HPLC methods (Note: EPA rejects HPLC methods for waste treatment residual matrices for reasons discussed in section III.A.2.h.(2)(a.).) In addition, there are no verified SW-846 analytical methods for measuring P009 and U133 in treatment residues.

These analytical problems preclude setting concentration-based treatment standards. The Agency is thus proposing "Thermal Destruction" (e.g., incineration) as a required method of treatment for the nonwastewater forms of these U and P wastes. Although there is an SW-846 method for U109, the Agency is not proposing a numerical standard for this waste since it is very similar to P068, U086, U098, U099, and U133 (all are hydrazine compounds) and it is the Agency's belief that thermal destruction will be effective treatment for this waste.

The Agency is proposing "Carbon Adsorption" as a required method of treatment for the wastewater forms of this group of U and P wastes. Wastewater forms of these wastes can easily be adsorbed due to the branched and ionic nature of their structures. After adsorption (and before disposal) the contaminated carbon must be incinerated (in compliance with the proposed treatment standard for nonwastewaters).

Data indicate that some of these wastes (i.e., P068) can be treated by

ozone/ultraviolet light oxidation. For complete removal and destruction of these wastes from wastewaters, however, ozone/ultraviolet light oxidation must be followed by carbon adsorption in order to meet the treatment standard when it is promulgated.

The Agency is unaware of any alternative treatment or recycling technologies that have been examined specifically for these U and P wastes and is, therefore, soliciting data and comments on such technologies. In any case, today's proposed treatment standard does not preclude recycling (provided the recycling does not involve burning as fuel or is not a use constituting disposal; see § 261.33, first sentence).

*(2) Incinerable Inorganics.*

P006—Aluminum phosphide  
P096—Phosphine  
P105—Sodium azide  
P122—Zinc phosphide (<10%)  
U135—Hydrogen sulfide  
U189—Phosphorus sulfide  
U249—Zinc phosphide (<10%)

These wastes were grouped together because they consist of compounds containing only inorganics such as sulfur, nitrogen, phosphorous, and metals. Data indicate that these wastes are currently being incinerated by some commercial facilities. The Agency does not believe, however, that numerical treatment standards based on incineration can be established for these wastes at this time. The major problem in establishing concentration-based standards for these wastes is that EPA does not currently have an analytical method for measuring these wastes in treatment residues. In cases when there is no analytical method for a particular waste, EPA tries to find an appropriate measurable surrogate or indicator compound; however, no constituent has been identified in these wastes that could be used as a surrogate or indicator compound for nonwastewaters. See section III.A.1.h.(2.) for a detailed discussion of analytical problems.

One of the specific problems encountered in analysis of P006 and P105 is that these wastes break down quickly in water (hydrolyze), making the analysis of wastewater forms of these wastes very difficult. In addition, SW-846 analytical methods do not exist for P105 and U189. In today's rule the Agency is proposing a treatment standard of "Thermal Destruction" for the nonwastewater forms of these wastes. While these wastes are inorganic, thermal destruction will convert these reactive and acutely toxic



materials to less toxic, nonreactive inorganic oxides. However, these wastes will probably contain high concentrations of sulfur and phosphorous when discarded as off-spec products, making their treatment more difficult. Incineration of these wastes will require the use of air pollution control equipment capable of controlling the emissions of phosphorous and sulfur to acceptable levels (see the discussion of this issue as it relates to organo-nitrogens and organo-sulfur U and P wastes in section III.A.3.g.).

For wastewater forms of P006, P096, P122, U135, U189, and U249, the Agency is proposing a standard of "Chemical Oxidation Followed by Precipitation as Insoluble Salts". For the wastewater forms of P105, the Agency is proposing "Chemical Oxidation" as a method of treatment because the sodium azide forms sodium ions in solution rather than forming salts.

The Agency is currently unaware of any alternative treatment or recycling technologies that have been examined specifically for these wastes and solicits data and comments on these. The proposed rule, in any case, does not preclude recycling (provided the recycling does not involve burning as fuel or is not a use constituting disposal; see § 261.33, first sentence).

#### (3) Fluorine Compounds.

P056—Fluorine

U134—Hydrofluoric Acid

These wastes were grouped together because of their physical form and because they contain fluorine. Both of these chemicals may be generated as gases (although U134 is often generated as an aqueous acid). Both of these chemicals are also highly reactive and highly corrosive.

The Agency is proposing a treatment standard of "Solubilization in Water Followed by Precipitation as Calcium Fluoride" as a method for the nonwastewater form of these wastes, based on the chemical properties of aqueous fluoride ions and the insolubility of calcium fluoride. The Agency is also proposing that recovery as an alternative specified method. The Agency is requesting comments and data on these options.

The Agency has recently collected data for the wastewater forms of these wastes (see BDAT Background Document for Wastewaters Containing BDAT List Constituents in the RCRA Docket). Based on these data, the Agency is proposing a concentration-based treatment standard of 35 mg/l.

#### (4) Recoverable Metals.

P015—Beryllium dust

P073—Nickel carbonyl

P087—Osmium tetroxide

The Agency has identified the wastes in this group as metal wastes that have a high potential for recovery. Because there are so little data on these wastes, characterization is very difficult. All the wastes in this group contain metallic elements (i.e., beryllium, osmium, and nickel) that can be recovered due to their high economic value. Information available to the Agency indicates that recovery of these metallic elements from these waste is feasible and is currently practiced. The Agency is proposing a standard of "Recovery as a Method of Treatment" for both nonwastewater and wastewater forms of these wastes. At this time the Agency is not aware of any treatment alternative applicable to these wastes and is soliciting comments and information that may help to identify alternative treatment.

BDAT TREATMENT STANDARDS FOR  
P009, P068, P081, P112, U023, U086,  
U096, U098, U099, U103, U109, U133,  
AND U160

[Nonwastewaters]

Thermal Destruction as a Method of Treatment

BDAT TREATMENT STANDARDS FOR  
P009, P068, P081, P112, U023, U086,  
U096, U098, U099, U103, U109, U133,  
AND U160

[Wastewaters]

Incineration or Carbon Adsorption as Methods of  
Treatment

BDAT TREATMENT STANDARDS FOR  
P006, P096, P105, P122, U135, U189,  
AND U249

[Wastewaters]

Chemical Oxidation Followed by Precipitation as  
Insoluble Salts as a Method of Treatment

BDAT TREATMENT STANDARDS FOR  
P006, P096, P105, P122, U135, U189,  
AND U249

[Nonwastewaters]

Thermal Destruction as a Method of Treatment

BDAT TREATMENT STANDARDS FOR  
P015, P073, AND P087

Recovery as a Method of Treatment

BDAT TREATMENT STANDARDS FOR  
P056 AND U134

[Nonwastewaters]

Solubilization in Water Followed by Precipitation as  
Calcium Fluoride; or Recovery as Methods of  
Treatment

BDAT TREATMENT STANDARDS FOR  
P056 AND 134

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Fluoride.....	35

*5. Proposed Treatment Standards for Metal Wastes—***a. Introduction.** Metal wastes are hazardous wastes containing metallic compounds such as metallic salts, organometallics, and bimetallic compounds. Certain K, U, and P wastes were listed specifically for the presence of metallic compounds. Additionally, a waste can be identified as an EP toxic characteristic waste based on the concentration of one of eight different metals (see 40 CFR 261.24). Paraphrasing the criteria in 40 CFR 261.24, a waste exhibits the characteristic of EP toxicity if the extract from the EPA-specified extraction procedure (EP) contains arsenic, barium, cadmium, chromium, lead, mercury, selenium, or silver at a concentration equal to or greater than the levels presented in Table I—Maximum Concentration of Contaminants for Characteristic of EP Toxicity.

*(1) General Characterization of Metal Wastes.* There are also patterns encountered in characterizing metal compounds that had to be dealt with in order to propose treatment standards for these wastes. Some waste characterization data was gathered by EPA in the National Survey of Treatment, Storage, Disposal, and Recovery Facilities (the TSDR Survey); however, the major source of waste characterization data was the National Survey of Hazardous Waste Generators



(the Generator Survey). The Generator Survey was statistically designed to represent a cross-section of all major hazardous waste generators. Results of this survey have been used to develop today's proposed treatability groups and corresponding treatment standards whenever possible. (However, one problem encountered was that the U and P wastes are generated sporadically; thus, characterization data on the U and P forms of these metal wastes are limited.)

Results of the Generator Survey indicate that many metalbearing wastes often exhibit another characteristic such as reactivity, or contain concentrations of other metals above their characteristic levels. For example, P065 (mercury fulminate) exhibits the characteristic of reactivity which must be removed prior to land disposal. Another example is that of P114 (thallium selenite), where proposed treatment standards address both total thallium and total selenium. If metal wastes exhibit multiple characteristics, treatment must address each characteristic (including the characteristic of EP toxicity for each metal where a waste is EP toxic for a number of metal constituents), in addition to the primary metal constituent. Generally, this requirement presents no problem in that most metals are amenable to conventional metal hydroxide or sulfide precipitation and stabilization. There are problems, however, associated with arsenic, barium, selenium, and mercury. These metals are discussed separately in subsequent sections due to their unique chemistries.

There are certain analytical difficulties associated with metal compounds that EPA had to deal with in order to propose treatment standards for these wastes. Analytical methods are capable of measuring the concentration of a specific toxic metal in a waste. There is no way, however, to measure the concentration of a specific metallic compound (e.g., a metal salt). For example, given a mixture of chromium nitrate and chromium sulfate, analytical methods will measure chromium but will not determine whether it is in the sulfate or nitrate form. Further complications in identifying the specific metallic compound arise because many of these compounds will dissociate in water. Therefore, treatment standards for metallic compounds are based on a quantitative analysis for the metal constituent only, and not on the metallic salt. The Agency believes that by regulating the metal, the primary toxic hazard associated with these metallic

compounds will be controlled. For example, the Agency believes that by regulating total chromium in U032 (calcium chromate), the hazards associated with that waste will be addressed. The Agency requests comment on whether it is appropriate to regulate only the toxic metal constituents in these wastes.

(2) *Development of Treatment Standards for Metals.* Most metal wastes are generated in inorganic matrices such as inorganic solutions, wastewater treatment sludges, or incinerator ash-type residues. These wastes are typically amenable to conventional treatment such as metal hydroxide or sulfide precipitation and stabilization. Metal wastes may be present, however, in complex matrices such as contaminated soil or have significant quantities of organic constituents. Stabilization techniques may not always be effective treatment for these organometallic wastes; therefore, incineration is typically required to destroy the organic constituents prior to recovery or stabilization.

In today's notice, the Agency is proposing treatment standards for many of the D, F, K, U, or P wastes expressed as concentrations of specific metals. Performance data are available from treatment of various F and K wastes which contain these metals. Characterization data on many of these metal wastes are limited, and therefore, the Agency is proposing treatment standards for many metal-bearing wastes based on a transfer of performance data from other wastes containing these metals having similar waste characteristics. The Agency is soliciting comment on these transfers for metal wastes.

The Agency is proposing treatment standards for the characteristic metals expressed as concentration-based standards or as required methods of treatment. Consistent with the discussion in preamble section III.C., the Agency is, in some cases, proposing concentration-based treatment standards lower than the characteristic levels. In other cases, the Agency is specifying a method of treatment. EPA could possibly develop concentration-based treatment standards, however, if commenters submit data supporting such an action. The preamble sections that follow contain summaries of the Agency's initial conclusions. More detailed information is contained in the Background Document for each metal.

(3) *Relationship to California List Prohibitions.* There is regulatory overlap between the statutory levels in effect for

California list metals and the treatment standards for characteristic metal wastes being proposed today. The Agency has stated in previous rulemakings (see 52 FR 25773 (July 7, 1987); and 53 FR 31187 (August 17, 1989)) that in cases where there is regulatory overlap, the more waste-specific treatment standard applies.

The Agency is today proposing treatment standards for characteristic EP toxic metal wastes. The proposed concentration-based wastewater and/or nonwastewater treatment standards, when promulgated, will supercede the California list statutory levels for these metals because they are more specific. The California list statutory levels will continue to apply to the land disposal of liquid hazardous wastes containing nickel and thallium (except for those F, K, U, or P listed wastes for which treatment standards for nickel and/or thallium are promulgated) because these toxic metals are currently not covered by the EP toxicity test. (See also section III.M. below dealing with the issue of continued applicability of California list prohibitions including during national capacity variance periods.)

#### *b. Arsenic and Selenium*

D004—EP toxic for arsenic

D010—EP toxic for selenium

K031—By-product salts generated in the production of MSMA and cacodylic acid.

K084—Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K101—Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

K102—Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

P010—Arsenic acid

P011—Arsenic (V) oxide

P012—Arsenic (III) oxide

P036—Dichlorophenylarsine

P038—Diethylarsine

P103—Selenourea

P114 Thallium selenite

U136 Cacodylic acid

U204—Selenious acid

U205—Selenium disulfide

These wastes are grouped together because they all contain either arsenic or selenium as the primary hazardous constituent. The Agency considers arsenic and selenium to be in the same general treatability group due to similarities in their chemical behavior.



Although arsenic and selenium exhibit positive valence states, they show little tendency to exist as solitary cationic species in aqueous matrices. Arsenic and selenium typically exist in aqueous conditions as oxo-anions (e.g., arsenic appears primarily as anionic arsenite ( $\text{AsO}_2^-$ ) or arsenate ( $\text{AsO}_4^{3-}$ )). This behavior is important, in that selection and performance of treatment technologies for other metals are based primarily on the cationic behavior of the metals in aqueous conditions. Thus, treatment technologies for both wastewaters and nonwastewaters containing arsenic and selenium are often different compared to wastes containing only other metal constituents.

The treatment standards presented in today's preamble for all arsenic and selenium wastes are based on a limited amount of treatment data. In this notice the Agency is soliciting data on the characterization and treatment of wastes containing arsenic or selenium. Copies of any additional data pertaining to these proposed treatment standards that may be submitted during the public comment period can be specifically requested in writing by identifying the request for data as "Additional data on treatment of arsenic and selenium—Section III.A.5.b.". See section III.A.1.i. of today's preamble for additional information on procedures for requesting additional data on specific standards.

(1) *Identification of BDAT for Wastewaters.* When evaluating treatment technologies to establish wastewater treatment standards for arsenic and selenium wastes, the Agency believes that it must consider not only the efficiency of removal of these metals from the wastewater, but also the physical and chemical state of the arsenic and the selenium that ends up in the wastewater treatment residues. Wastewater treatment for most metals is typically based on precipitation with anionic species such as hydroxide or sulfide.

Soluble arsenic species have been reported to be removed from wastewaters by using lime (calcium hydroxide) as a precipitant, resulting in arsenic precipitation as a calcium salt (calcium arsenate) rather than as a hydroxide as is typical for most other metals. Sulfide precipitation using sodium sulfide or hydrogen sulfide as reagents has also been reported as being partially effective for wastewaters containing arsenic in the form of arsenates, but relatively ineffective for arsenites. The removal of arsenic through the addition of a sulfide is believed to be the result of a chemical

reaction of the arsenate anions with the sulfide anions thereby converting the arsenate form to a relatively insoluble arsenic sulfide. While calcium arsenate is slightly soluble in water, arsenic sulfide is practically insoluble in water. Although lime may be effective in precipitating arsenic from wastewaters, sulfide precipitation should result in a precipitate that is less soluble in water than the calcium salt.

To further complicate matters, while arsenic sulfide is relatively insoluble in water under acid conditions, information indicates that the leachability (i.e., solubility) of the arsenic sulfide increases under alkaline conditions. Therefore, the decrease in solubility of arsenic sulfide versus the calcium arsenate must be balanced against the potential for leachability of the resulting wastewater treatment sludges during co-disposal with alkaline wastes or materials. This potential for increased leachability under these conditions is a legitimate concern, in that some operators of hazardous landfills co-dispose all "metal" wastes and it is typical practice to add excess lime to prevent migration of the other metals prior to disposal.

The Agency solicits comment on whether it should specify the use of sulfide as the precipitating reagent for all wastewaters containing arsenic as part of the treatment standard. In a similar manner, the Agency solicits comment on whether it should establish disposal requirements under 40 CFR parts 264 and 265 for all arsenic and selenium wastewaters that would require sulfide precipitation followed by segregation of the treatment residuals from alkaline materials (in either monofills or separate subcells within a landfill). Such a requirement would be a type of management standard designed to prevent co-disposal of incompatible wastes. By soliciting comment, EPA notes that these proposed requirements may be promulgated as additional requirements to meeting the proposed concentration-based standards.

Some arsenic and selenium wastewaters, such as those from wood preserving operations, may require more extensive treatment trains in order to treat hexavalent chromium, other metals, and organics which could possibly interfere with the treatment of the arsenic or selenium. A reduction step for hexavalent chromium and an oxidation step (with reagents such as hydrogen peroxide or hypochlorite) may be necessary to treat the organics. In addition, complexed organometallics which may be present will probably have to be oxidized or otherwise

removed prior to conversion of the metals to their proper valence state for further metal treatment by precipitation. However, the Agency currently lacks data that indicate that the proposed concentration-based standards cannot be achieved for these types of wastes and anticipates that pretreatment steps such as hexavalent chromium reduction and chemical oxidation of organics could remove these potential interferences. This is further supported by the fact that quantitative analytical methods for arsenic and selenium in waste samples include such pretreatment steps to remove the interferences during analysis. The Agency specifically solicits comments on the applicability of these and other pretreatment technologies for arsenic and selenium wastewaters and data that indicate the achievability of the concentration-based standards proposed in the following sections.

(a) *Proposed Standards for Arsenic-Containing Wastewaters.* The Agency has data on precipitation of arsenic from wastewaters identified as D004 from the veterinary pharmaceutical industry using lime followed by manganese sulfate and ferric in a three stage alkaline process. The Agency believes that these data represent a matrix that is very difficult to treat since it consists of a mixture of organic and inorganic compounds, including organo-arsenicals and inorganic arsenic compounds in concentrations up to 1,600 ppm. The data show that this three stage alkaline precipitation process provides effective treatment and removal of arsenic from these wastewaters because it reduces the concentration of arsenic in the wastewater to levels below the characteristic level of 5.0 mg/l. Therefore, the Agency is proposing two options for treatment standards for D004 wastewaters.

Based on these treatment data, the Agency is proposing a treatment standard of 0.79 mg/l arsenic for all D004 wastewaters. The Agency believes that these wastes represent the most difficult to treat wastewaters. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004(m). The Agency is also proposing a second option of limiting the treatment standard for D004 wastewaters to the characteristic level of 5.0 mg/l. The Agency specifically solicits comments on these two options.



The constituents for which P010, P011, and P012 wastes are listed are all inorganic forms of arsenic. The constituents for which P036, P038, and U136 wastes are listed are all organic forms of arsenic. K031 and K084 are typically generated as process wastes that contain mixtures of both organic and inorganic forms of arsenic. While all of these wastes are typically generated as nonwastewaters, the Agency expects that wastewater forms of these wastes may be generated from incidental spills or from the treatment process itself and thus would require treatment standards. The Agency expects that untreated wastewaters will be more dilute than the untreated D004 wastewaters that were used to develop the treatment standards, and thus would be expected to be less difficult to treat. Further, while K031, K084, P036, P038, and U136 wastes all contain organic forms of arsenic, the Agency believes that they can be chemically oxidized (using peroxides, permanganates, persulfates, or perchlorates) to destroy the organometallic bond prior to precipitation.

The Agency is proposing to transfer the D004 performance data and concentration-based treatment standard of 0.79 mg/l for K031, K084, P010, P011, P012, P036, P038, and U136 wastewaters. This is a reasonable approach given that: (1) The D004 wastewater that was tested by the Agency contained organo-arsenicals similar in structure to (or more complex than) those contained in K031, K084, P036, P038, and U136; (2) the D004 wastewater also contained inorganic arsenic compounds similar to those contained in K031, K084, P010, P011, and P012; (3) the untreated wastewater forms of these wastes are expected to be more dilute than the untreated D004 wastewater; and (4) the performance data demonstrate that the arsenic in the D004 wastewater can effectively be removed.

Additional wastewater treatment data primarily from the Agency's Office of Water have been recently analyzed for incorporation into the treatment standards for arsenic wastewaters. These data include the treatment of wastewaters that are not specifically listed as RCRA hazardous wastes, but do contain many of the corresponding U, P, and metal constituents. While these data were not available in time to incorporate into this discussion or into the background document for these wastes, these data are being placed in the administrative record for today's notice. Therefore, the Agency is not precluded from using these data in promulgating the standards for these

wastes. Further information on these data can be found in section III.A.1.h. (6.).

An alternative standard for arsenic based on these data are presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. This standard is based on single step chemical precipitation process. Thus, the Agency is proposing these standards as alternative standards for wastewaters for which concentration-based standards based on incinerator scrubber waters have been proposed in the following sections.

(b) *Proposed Standards for Selenium-Containing Wastewaters.* The Agency has no specific treatment data on RCRA hazardous wastewaters containing selenium. However, based on the similarities in chemical behavior of arsenic and selenium, the Agency is proposing to extrapolate the performance data for arsenic contained in D004 wastewaters to the selenium contained in D010 wastewaters and is thus proposing two options for treatment standards for D010 wastewaters.

Based on these treatment data, the Agency is proposing a treatment standard of 0.79 mg/l selenium for all D010 wastewaters. This is based on a level of treatment achieved for wastewaters that are representing the most difficult to treat. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of Section 3004(m). The Agency is also proposing a second option of limiting the treatment standard for D010 wastewaters to the characteristic level of 1.0 mg/l. The Agency solicits comments regarding the transfer of these performance data to D010 wastewaters and is specifically soliciting additional treatment data for wastewaters containing treatable levels of selenium that would classify the wastewaters as D010 prior to treatment.

Similar to the preceding discussion and the discussion for U and P arsenic wastewaters, the Agency is also proposing to transfer the D004 performance data for arsenic to the selenium in P103, P114, U204, and U205 wastewaters. Thus, the treatment standard for these wastewaters is proposed as 0.79 mg/l selenium.

Additional wastewater treatment data primarily from the Agency's Office of Water have been recently analyzed for incorporation into the treatment standards for selenium wastewaters. These data include the treatment of

wastewaters that are not specifically listed as RCRA hazardous wastes, but do contain many of the corresponding U, P, and metal constituents. While these data were not available in time to incorporate into this discussion or into the background document for these wastes, these data are being placed in the administrative record for today's notice. Therefore, the Agency is not precluded from using these data in promulgating the standards for these wastes. Further information on these data can be found in section III.A.1.h.(6.).

An alternative standard for selenium based on these data are presented in section III.A.7. of today's notice for wastewater forms of multi-source leachate. This standard is also based on single step chemical precipitation process. Thus, the Agency is proposing these standards as alternative standards for wastewaters for which concentration-based standards based on incinerator scrubber waters have been proposed in the following sections.

(2) *Identification of BDAT for Nonwastewaters.* The success of conventional stabilization processes for hazardous wastes containing metals is due partly to the ability of the alkaline cementitious reagents to chemically bind the cationic metal species. The Agency attempted pozzolanic stabilization of K031 nonwastewaters that contained relatively high concentrations of arsenic (133,000 ppm). The resultant data indicate that in some cases arsenic leachability from the treated residues was 10% higher than that from the untreated wastes. The increase in arsenic leachability after stabilization is probably due to the anionic character of the arsenic complexes that may be present in the waste, the inapplicability of stabilization processes to anionic metal species, and to the probable increase in solubility of some forms of arsenic at higher pH. This increase in leachability appears to indicate that the arsenic is not being chemically bound by the conventional stabilization reagents that were chosen for examination.

Some data indicate that cementitious or pozzolanic stabilization of wastes containing low concentrations of arsenic can be performed. These stabilization data using cement, lime, and other proprietary binder mixtures are inconclusive in demonstrating stabilization of arsenic. Although the amount of leachable arsenic is sometimes reduced, the results are not reproducible and, in some cases, can be attributed to dilution with the binders (high binder to waste ratios). While the



Agency has not fully investigated these potential problems in solidification for high concentrations of selenium, the Agency believes, based on selenium's chemical similarities to arsenic, that these same complications will occur.

Some data also indicate that asphalt stabilization of inorganic, low level arsenic waste can be performed, and may be especially appropriate for stabilizing arsenic in waste matrices containing other metals, because cementitious stabilization may increase the arsenic leachability. The two major concerns the Agency has regarding the application of this technology to arsenic and selenium wastes are: (1) the possibility that hazardous organic constituents (such as polynuclear aromatic hydrocarbons) that may be present in the asphalt itself will leach; and (2) the lack of performance data on this technology for arsenic and selenium wastes. An analysis of a TCLP extract from a sample of asphalt binder showed no sign of leaching organics, seemingly eliminating one of these concerns. Additional information regarding performance of this technology on arsenic and selenium wastes still remains necessary. The Agency therefore solicits comment and data on this technology.

No attempt was made by the Agency to differentiate between low level and high level arsenic or selenium wastes in the development of the proposed nonwastewater standards. The Agency does not have the data to properly make a distinction between a high level and a low level subgroup, or to determine applicable treatment for wastes in each subgroup. However, the Agency recognizes that a high level and a low level treatability group may exist and that treatment technologies for wastes in each group may be different. Therefore, the Agency is requesting data and comments identifying applicable treatment technologies for these potential subgroups. If no data is received, the standards proposed in today's rule will apply to all forms of nonwastewaters containing arsenic and selenium, regardless of the concentration of these metals in the waste.

As an alternative to cementitious stabilization for arsenic and selenium wastes, the Agency has identified vitrification as a stabilization technology that is applicable to nonwastewaters. Vitrification is a technology that uses high temperatures (1200 °C to 1500 °C) generated by electrodes or direct flame to melt a mixture of glass formers and waste materials into a molten slag which then

cools and incorporates the metals and other materials into this glass/slag matrix. The waste materials are usually added after the glass is liquefied. This technology can be applied to wastes containing organic as well as inorganic forms of arsenic since it operates at temperatures that will destroy the organics present in the wastes. When the glass/slag matrix cools and solidifies, it forms a relatively impermeable mass. (See the Arsenic/Selenium Background Document for additional discussion of this technology).

Vitrification uses high operating temperatures that may cause the arsenic and selenium in the waste to volatilize. The glass melting furnaces, however, are designed so that any volatiles will condense in the cooler areas at the top of the furnace that falls back down into the molten glass, thus being further treated. Additional information indicates that precalcination of materials containing arsenate (ferric or calcium) at temperatures close to 400 °C has been found to reduce potential losses of arsenic due to vaporization during vitrification. After these arsenate materials have been calcined as a pretreatment step, they were dissolved in an iron silicate slag at temperatures up to 1290 °C without volatilization of arsenic oxides. Therefore, this appears to demonstrate that for certain arsenic wastes volatilization resulting from the vitrification treatment process should not be an air pollution problem. Vitrification has been used successfully by the nuclear industry for the disposal of low level radioactive waste containing metallic elements. The Agency is soliciting comments and data on this stabilization technique for arsenic and selenium wastes. Of particular interest is data for those wastes that are known to contain organo-complexes of these metals.

Arsenic and selenium are produced as a by-product of copper and gold mining operations. The Agency believes that for some wastes, recovery of arsenic and selenium is feasible using high temperature metal recovery technologies used by mining operations, provided the metal has been first chemically converted to an easily recoverable form. Information available to the Agency indicates that recovery of elemental selenium out of certain types of scrap material and other type of wastes is currently practiced in the United States. The Agency is requesting comments and data on the applicability of these, and any other, recovery technologies for wastes containing arsenic or selenium. While recovery options may be

preferable over vitrification or stabilization for some of these wastes, the choice of treatment options must be made by the generator or treater based on the ability of the particular recovery system to handle the waste.

(a) *Proposed Standards for Arsenic-Containing Nonwastewaters.* Data available to the Agency indicate that vitrification can incorporate arsenic in concentrations up to 23.5% into a glass/slag matrix with a maximum leachability of arsenic at 1.8 mg/l (using the EP toxicity protocol). In all, these data consist of 14 separate data points, with arsenic concentration in the untreated wastes ranging from 0.3% to 23.5% and leachate concentrations ranging from 0.007 mg/l to 1.8 mg/l. The Agency is specifying that the EP toxicity test be performed to measure compliance with today's proposed nonwastewater standards. The EP should be used rather than the TCLP because all of the performance data from vitrification upon which EPA is relying used the EP to evaluate the technology's performance. However, a facility is not precluded from demonstrating the statistical equivalency of the TCLP to EP test for these wastes. The Agency views the continued use of the EP test as a measure of compliance with treatment standards as unfortunate. We strongly encourage the submission of TCLP performance data for arsenic that will eliminate the need for a separate analytical protocol for this metal. In addition, as noted in other rulemakings, EPA views the TCLP as the most appropriate protocol for measuring the effectiveness of stabilization as BDAT).

All of these data indicate that the vitrification can achieve stabilization of arsenic to leachate levels below the characteristic level (5.0 mg/l). However, using the analytical recovery data transferred from the Agency's analysis of K102 incinerator ash (which had the appearance of a slag) and a variability factor of 2.8, a concentration-based treatment standard for arsenic of 5.6 mg/l in the leachate (measured by the EP toxicity test) was calculated.

The Agency is also proposing to transfer the concentration-based treatment standard of 5.6 mg/l arsenic to K031, K084, P010, P011, P012, P036, P038, and U136 nonwastewaters. We believe that the performance of the vitrification technology, and analytic variability of treatment residues, also will not change for different arsenic-containing wastes. Thus, we think this transfer is legitimate.

(b) *Proposed Standards for Selenium-Containing Nonwastewaters.* The



Agency has no treatment data on D010 nonwastewaters. However, based on the similarities in chemical behavior of arsenic and selenium, the Agency is extrapolating the performance data for vitrification of arsenic to D010 nonwastewaters and thus is proposing the same concentration-based standard, 5.6 mg/l selenium as measured in the leachate generated by the EP toxicity test. In a similar manner, the Agency is proposing to transfer this concentration-based treatment standard of 5.6 mg/l selenium to P103, P114, U204, and U205 nonwastewaters. The Agency solicits comment on the transfer of these performance data to D010 nonwastewaters, and requests data on any treatment or recovery technologies applicable to these nonwastewaters.

Because this treatment standard (5.6 mg/l) is above the level of leachable selenium that defines the waste as D010 (1.0 mg/l), D010 wastes that are generated at a level between 5.6 mg/l and 1.0 mg/l are considered to meet the treatment standard, but are still considered hazardous wastes and, therefore, must be land disposed in a subtitle C facility.

(3) *Revisions to K101 and K102 Treatment Standards.* In the First Third final rule (53 FR 31170, August 17, 1989), the Agency established two subcategories of K101 and K102 nonwastewaters based on the concentration of arsenic in the waste. A low arsenic subcategory was established for waste containing less than 1% arsenic and a high arsenic subcategory for waste containing 1% or greater. EPA believed this distinction establishing a subcategory for high arsenic K101 and K102 nonwastewaters was necessary to ensure that facilities did not burn arsenic-containing wastes that could potentially create a significant risk due to stack emissions of arsenic.

Treatment standards for the organics contained in these wastes were developed based on incineration of K101 and K102 nonwastewaters in the low arsenic subcategory. The corresponding nonwastewater standards included the regulation of certain metals based on stabilization. However, EPA did not establish a nonwastewater treatment standard for arsenic because the data did not indicate treatment for the arsenic.

In today's notice the Agency is proposing to change the nonwastewater standards for K101 and K102 promulgated in the First Third final rule by eliminating the low and high level arsenic subcategories and by replacing

the existing standards with a concentration-based treatment standard for arsenic of 5.6 mg/l (measured in the EP extract) based on the performance of vitrification. The Agency believes that the organic constituents present in these wastes (for which treatment standards were based upon incineration) will be destroyed by the high temperatures at which vitrification operates (temperatures comparable to incineration). Therefore, the Agency is proposing to remove the organic standards for K101 and K102 nonwastewaters. In addition, EPA is proposing to eliminate the existing metal standards for nonwastewaters because they were based on performance of a different stabilization technology.

The Agency is also proposing new wastewater treatment standards for K101 and K102 in today's rule. Standards for K101 and K102 wastewaters were promulgated in the First Third rule (53 FR 31170, August 17, 1989) and were applicable to all forms of K101 and K102 wastewaters (i.e., they did not distinguish between high arsenic or low arsenic subcategories). These promulgated standards were based on the same D004 wastewater treatment data used in today's proposal to establish arsenic standards for other K, U, and P wastes. In the process of reevaluating the D004 wastewater treatment data for today's proposed rule, however, EPA discovered an error in the calculation of the promulgated K101 and K102 wastewater standards for the metal constituents. The Agency is proposing today to correct this error by amending the wastewater standards for the metal constituents (arsenic, cadmium, lead, and mercury) in K101 and K102. Therefore, a new treatment standard of 0.79 mg/l for arsenic, 0.24 mg/l for cadmium, 0.17 mg/l for lead, and 0.82 mg/l for mercury is being proposed. These proposed standards are based on the same D004 data but using a different data set than that used for the development of the promulgated standards. Since there was no error in the calculation of the promulgated standards for the organic constituents, the Agency is not proposing to change the standards for the organics present in K101 and K102 wastewaters. The promulgated standards for the organics are being presented for convenience of the reader and are not being reconsidered. Therefore, no comment on this subject will be accepted.

#### BDAT TREATMENT STANDARDS FOR D004, K031, K084, P010, P011, P012, P036, P038, AND U136

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Arsenic.....	0.79

#### BDAT TREATMENT STANDARDS FOR D004, K031, K084, P010, P011, P012, P036, P038, AND U136

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, EP leachate (mg/l)
Arsenic.....	5.6

#### BDAT TREATMENT STANDARDS FOR D010, P103, P114, U204 and U205

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Selenium.....	0.79

#### BDAT TREATMENT STANDARDS FOR D010, P103, P114, U204 and U205

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, EP leachate (mg/l)
Selenium.....	5.6

#### BDAT TREATMENT STANDARDS FOR K101

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Ortho-nitroaniline .....	0.27
Arsenic.....	0.79
Cadmium.....	0.24
Lead.....	0.17
Mercury.....	0.082



BDAT TREATMENT STANDARDS FOR  
K102

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total Composition (mg/l)
Ortho-nitrophenol.....	0.028
Arsenic.....	0.79
Cadmium.....	0.24
Lead.....	0.17
Mercury.....	0.082

BDAT TREATMENT STANDARDS FOR  
K101 AND K102

[Nonwastewaters\*]

Regulated constituent	Maximum for any single grab sample, EP leachate (mg/l)
Arsenic.....	5.6

\* This proposes to remove subcategories based on high and low arsenic content

*c. Barium.* The Agency has identified two hazardous wastes that potentially contain high levels of barium. These include P013 (barium cyanide) and D005 (EP toxic for barium; 100 mg/l barium as measured in an EP leachate). Treatment standards for cyanides contained in P013 wastes were promulgated with the Final Rule for second Third Wastes (54 FR 26614 (June 23, 1989)). At the same time, treatment standards for barium in P013 wastewaters were not promulgated based on the lack of treatment data. Today's notice proposes treatment standards for P013 wastewaters and all D005 wastes.

According to the periodic chart of elements, barium is a group II element that has chemical properties similar to magnesium and calcium. In aqueous conditions it typically exists as a divalent, cationic species. This behavior is important, in that selection and performance of treatment technologies for barium is somewhat similar to most other metals based on this cationic behavior in aqueous conditions. However, due to differences in solubilities of certain salts of barium compared to other metals, treatment technologies for both wastewaters and nonwastewaters containing barium are slightly different compared to wastes containing only other metal constituents.

The treatment standards presented in today's preamble for all barium wastes are based on a limited amount of treatment data. In this notice, the Agency is soliciting data on the characterization and treatment of all

wastes containing barium. Copies of any additional data pertaining to these proposed treatment standards that may be submitted during the public comment period, can be specifically requested in writing by identifying the request for data as "Additional data on treatment of barium—Section III.A.5.c.". See section III.A.1.i. of today's preamble for additional information on procedures for requesting additional data on specific standards.

(1) *Identification of BDAT for Wastewaters.* When evaluating treatment technologies to establish wastewater treatment standards for barium wastes, the Agency believes that it must consider not only the efficiency of removal of barium from the wastewater, but also the physical and chemical state of the precipitated barium salts that end up in the wastewater treatment residues.

While some data indicate that barium can be removed from wastewaters by using lime (calcium hydroxide) or caustic (sodium hydroxide) as a precipitating reagent (resulting in precipitation of the barium as a hydroxide salt (barium hydroxide)), barium is typically precipitated as a sulfate salt (barium sulfate) using sodium sulfate, ferric sulfate, or aluminum sulfate as a precipitating reagent. Most other cationic metals are typically removed from wastewaters based on precipitation as hydroxides or sulfides. While barium hydroxide is slightly soluble in water, barium sulfate is practically insoluble in water. Although lime or caustic may be effective in precipitating barium from wastewaters, sulfate precipitation should result in a precipitate that is less soluble in water than the hydroxide salt.

To further complicate matters, the resultant nonwastewater treatment residues containing barium sulfate salts may not be effectively stabilized by conventional stabilization reagents. This is primarily due to the anticipated presence of excess soluble sulfate (used as the precipitating reagent) which is known to interfere with the cementitious reactions. (Note: Conventional stabilization processes are typically applied to wastes containing primarily metal hydroxide salts). Therefore, in development of the appropriate BDAT treatment standards for wastewaters containing barium, the decrease in solubility of the resultant nonwastewaters containing barium sulfate (versus the more soluble barium hydroxide) must be balanced against the potential difficulty in conventional stabilization processes for the barium sulfate nonwastewaters. However, there

are stabilization reagents (such as certain types of Portland cements) that have been developed that are specifically designed to handle materials containing high sulfates.

Due to a well established chemical relationship known as the "common ion effect" and due to the relatively higher solubility of barium hydroxide (compared to barium sulfate), there exists a reasonable potential for an increase in leachability of the resulting wastewater treatment sludges (either the barium hydroxide or the barium sulfate) during co-disposal with alkaline wastes or materials. This potential for increased leachability under these conditions is a legitimate concern, in that some operators of hazardous landfills co-dispose all "metal" wastes and it is typical practice to add excess lime to prevent migration of the other metals prior to disposal.

Thus, EPA solicits comments on whether it should (as part of the treatment standard) specify the use of sulfate as the precipitating reagent for all wastewaters containing barium. In a similar manner, the Agency solicits comment on whether it should establish disposal requirements under 40 CFR Parts 264 and 265 for all barium wastewaters that would include sulfate precipitation followed by segregation of the treatment residuals from alkaline materials (i.e., in either monofills or separate subcells within a landfill). EPA notes that these proposed requirements may then be promulgated as additional requirements to meeting the proposed concentration-based standards.

Additional information indicates that barium could be precipitated as barium carbonate at pH 10–10.5, with lime used for pH adjustment, as an alternative treatment technology for barium wastewaters. Ion exchange also has been reported as achieving extremely high removal efficiencies. The Agency, however, lacks data to support these treatment technologies as being BDAT for D005 wastes.

For some barium wastewaters, more extensive treatment trains may be necessary in order to treat hexavalent chromium, other metals, and organics which could possibly interfere with the treatment of the barium. A reduction step for hexavalent chromium and an oxidation step (with reagents such as hydrogen peroxide or hypochlorite) may be necessary to treat the organics. However, the Agency currently lacks data indicating that the proposed concentration-based standards cannot be achieved for these type of wastes, and anticipates that pretreatment steps such as hexavalent chromium reduction



and chemical oxidation of organics could remove these potential interferences. The Agency specifically solicits comments on the applicability of these and other pretreatment technologies for barium wastewaters, as well as data indicating the achievability of the concentration-based standards proposed in the following sections.

The Agency has very little data on precipitation of barium from RCRA hazardous wastewaters identified as P013 or D005. However, the Agency's Office of Water does have data from its analysis of various treated wastewaters under the Agency's Effluent Guidelines Program. In the absence of treatment data specific to P013 or D005 wastewaters, the Agency believes that these data from the Effluent Guidelines Program can be transferred to develop treatment standards for P013 and D005 wastewaters.

Based on these treatment data, the Agency is proposing a treatment standard of 1.15 mg/l barium for all D005 wastewaters. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of Section 3004(m). The Agency is also soliciting comments on an option of limiting the treatment standard for D005 wastewaters to the characteristic level of 100 mg/l.

Based on Effluent Guidelines data, the Agency is also proposing a treatment standard for barium in P013 wastewaters of 1.15 mg/l barium. While P013 wastes (barium cyanide) are typically generated as nonwastewaters, the Agency expects that wastewater forms of these wastes may be generated from incidental spills or from the treatment process itself and thus would require treatment standards. The Agency expects that untreated wastewaters will be relatively dilute, and thus would not expect to be difficult to treat. The Agency points out that it is not reopening the promulgated treatment standards for cyanides in P013 for comment.

(2) *Identification of BDAT for Nonwastewaters.* For nonwastewater forms of P013 and D005, which primarily consist of inorganic barium salts other than hydroxides or sulfates, the Agency believes that the barium can be dissolved and reprecipitated as the sulfate or carbonate in order to generate a treatment residual meeting the characteristic level. In addition, barium may be able to be leached from these wastes by concentrated strong acid

solutions, with the acid leachate subsequently neutralized and treated by sulfate or carbonate precipitation. The Agency is proposing a required method as the treatment standard for these barium wastes. D005 nonwastewaters must be treated by acid or water leaching followed by chemical precipitation as sulfate or carbonate followed by stabilization.

For D005 wastes that are generated containing high levels of organics the Agency believes that these wastes can be incinerated prior to stabilization of the ash. The Agency is soliciting information on whether these wastes actually exist, the concentration of barium and organics within these wastes, and treatment data for these wastes. If the Agency finds that these wastes do exist and treatment data is submitted, the Agency may define these wastes as a separate treatability group based on the level of organics and barium and promulgate the resultant concentration-based standards based on these data. However, information is submitted that these wastes exist but no treatment data are submitted from which concentration-based standards can be developed, the Agency may promulgate "Incineration Followed by Stabilization as a Method of Treatment" for these wastes.

#### BDAT TREATMENT STANDARDS FOR D005 AND P013

##### [Nonwastewaters]

Acid or water leaching followed by chemical precipitation as sulfate or carbonate or stabilization as methods of treatment

#### BDAT TREATMENT STANDARDS FOR D005 AND P013

##### [Wastewaters]

Regulated constituent	Maximum for any 24 hour composite sample
	Total composition (mg/l)
Barium.....	1.15

*d. Cadmium.* The criterion for classifying a solid waste as a D006 hazardous waste is the presence of cadmium in a concentration exceeding 1.0 mg/l, as measured in an EP leachate. On July 8, 1987, a 100 mg/l statutory prohibition level went into effect for liquid hazardous wastes containing cadmium (see the California list final rule, 52 FR 25760). The Agency received

data during the comment period for the California list rule (that it presented in a subsequent Notice of Data Availability) indicating that the full range of California list wastes containing cadmium, except those containing high levels of oil and grease, could be treated to a concentration level of 1.0 mg/l through precipitation of wastewaters and stabilization of nonwastewaters. The 1.0 mg/l level was not promulgated at that time, but EPA has used the data received in response to both the California list proposal and the Notice of Data Availability, along with other waste specific data, to develop today's proposed treatment standards.

Based on information from the 1986 Bureau of Mines report on the production of cadmium and cadmium salts, cadmium is typically extracted from sulfide minerals bearing zinc, lead, and copper. Cadmium is used primarily in electroplating and in the production of nickel/cadmium rechargeable batteries (as well as other types of batteries), pigments, and plastics. Other uses of cadmium include television picture tube and fluorescent light phosphors, catalysts for primary ester and alcohol production, nuclear reactor controls, fire detection alloys, alloys and solders, and copper hardening agents.

The treatment standards presented in today's preamble for all cadmium wastes are based on a limited amount of treatment data. In this notice, the Agency is soliciting data on the characterization and treatment of all wastes containing cadmium. Copies of any additional data pertaining to these proposed treatment standards submitted during the public comment period can be requested in writing by identifying the request for data as "Additional data on treatment of cadmium—Section III.A.5.d." See section III.A.1.i. of today's preamble for information on procedures for requesting additional data on specific standards.

Treatment data indicate that cadmium follows treatment patterns of most other metallic waste in that conventional metal hydroxide or sulfide precipitation and stabilization appear effective for cadmium-bearing wastes. Based on all available waste characterization and treatment data, the Agency is proposing to group all D006 wastes into one of three treatability groups: (1) Wastewaters, (2) nonwastewaters, and (c) cadmium-containing batteries. The Agency is requesting data that will assist in further categorizing D006 wastes into these (and any other) treatability groups.

(1) *Identification of BDAT for Wastewaters.* This treatability group



encompasses the largest volume of cadmium wastes, which are generated primarily as electroplating rinsewaters. The technologies typically used for treating these wastewaters include chemical precipitation (as a hydroxide, carbonate, phosphate, sulfide, or ferrous sulfate coprecipitant), ion exchange, activated carbon adsorption, and evaporative and electrolytic recovery.

The Agency has very little data on precipitation of cadmium from RCRA hazardous wastewaters identified as D006. However, the Agency's Office of Water does have data from its analysis of various treated wastewaters under the Agency's Effluent Guidelines Program. In the absence of treatment data specific to D006 wastewaters, the Agency believes that these data from the Effluent Guidelines Program can be transferred to develop treatment standards for D006 wastewaters. The data show that the treatment provided by these industries can reduce the concentration of cadmium in the wastewater to levels below the characteristic level of 1.0 mg/l. Therefore, the Agency is proposing a concentration based treatment standard for D006 wastewaters based on the performance of precipitation in treating cadmium wastewaters.

Based on these treatment data, the Agency is proposing a treatment standard of 0.20 mg/l cadmium for all D006 wastewaters. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004 (m). The use of other technologies to achieve this concentration-based treatment standard is not prohibited by today's rule.

(2) *Identification of BDAT for Nonwastewaters.* Wastes which are comprised of concentrated cadmium metal, such as the residuals from the recovery of K061 (electric arc furnace dust containing cadmium) and zinc mining wastes, are amenable to recovery, direct reuse, or stabilization.

The Agency has data on the stabilization of nonwastewaters indicating that cadmium can be effectively stabilized to levels below the characteristic level. For example, the Agency has data on the stabilization of K061 (electric arc furnace dust containing cadmium primarily in the form of cadmium oxides) nonwastewaters indicating that cadmium can be stabilized to a level of 0.14 mg/l using TCLP extraction (53 FR 31164). Furthermore, the Agency has

data indicating that stabilized cadmium in F006 (wastewater treatment sludges containing primarily cadmium in the form of cadmium hydroxides) can achieve a TCLP extract level of 0.066 mg/l (53 FR 31153). Based on these available data, the Agency believes that all cadmium nonwastewaters can either be stabilized such that the technologies reduce the leachability and total composition of cadmium in D006 nonwastewaters to below the characteristic level.

As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it may have the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004 (m). The Agency is proposing two options for the development of treatment standards for D006 nonwastewaters.

The first option is to propose a concentration-based treatment standard for D006 nonwastewaters of 0.14 mg/l based on a transfer of K061 data. The Agency believes that this transfer is technically feasible due to fact that K061 wastes probably contain cadmium oxides which appear to be slightly more difficult to stabilize than the cadmium hydroxide found in a F006 wastes. Waste K061 is also a particularly difficult matrix to stabilize (see e.g., Comments of Steel Bar Mills Association and other steel producers) in the First Third rulemaking. The second option is to propose a method of treatment of stabilization or metals recovery. The Agency is soliciting comments on the concentration of cadmium that can be recovered and whether the Agency can identify a concentration of cadmium in nonwastewaters that is not amenable to metals recovery.

(3) *Identification of BDAT for Cadmium-Containing Batteries.* Nickel/cadmium rechargeable batteries are widely used in many household electronic products and are also used industrially in railroad signaling, diesel locomotive starting, commercial and jet aircraft starting, satellites, missile guidance systems, television and camera lighting, portable hospital equipment, computer memories, pinball machines, and gasoline pumps. Variations of this battery are the silver/cadmium cell and the mercury/cadmium battery, which are more costly and limited in their use.

Because the Agency does not have adequate data to establish a concentration-based standard, the Agency is proposing a treatment standard for cadmium-containing

batteries expressed as "Recovery as a Method of Treatment". The Bureau of Mines has conducted studies on pyrometallurgical techniques for recycling nickel/cadmium batteries. Data indicates that cadmium-containing batteries may be recycled through the use of smelting technologies. More information on this data can be found in the background document for cadmium wastes. EPA is specifically requesting data on the recovery of cadmium-containing batteries.

#### BDAT TREATMENT STANDARDS FOR D006

##### [Wastewaters]

Regulated constituent	Maximum for any 24 hour composite sample
	Total Composition (mg/l)
Cadmium.....	0.20

#### BDAT TREATMENT STANDARDS FOR D006

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample
	TCLP (mg/l)
Cadmium.....	0.14

#### BDAT TREATMENT STANDARDS FOR D006

##### [Cadmium Batteries]

Thermal recovery as a method of treatment

*e. Chromium.* U032 (calcium chromate) and D007 (EP toxic for chromium; 5.0 mg/l) are two of the many RCRA hazardous wastes that are listed for their chromium content. Typically, these wastes contain chromium as trivalent or hexavalent cations. Primarily in untreated wastewaters, chromium is present in its hexavalent state and is reduced by treatment to the trivalent state. The Agency is proposing to regulate chromium in wastes as "total" chromium rather than distinguishing between these two valence states. This is primarily because of the difficulty in analyzing treatment residues for hexavalent chromium. (Note: Concentrations of trivalent chromium are determined by subtracting the concentration of hexavalent



chromium from total chromium concentrations).

The Agency has data treatment of chromium in wastewaters such as K062 wastes that contain significant concentrations of chromium and other metals. These data on K062 wastes indicated treatment of up to 7,000 ppm of total chromium. This is similar to waste characterization data on other wastewaters (such as those generated in battery manufacturing) indicating concentrations of up to 10,000 ppm of total chromium in untreated waste. The data for treatment of nonwastewaters (sludges or solids) indicate that high levels of chromium in hydroxide sludges, incinerator ash, and in furnace dust, can be treated by conventional stabilization processes to below the characteristic level for D007.

(1) *Identification of BDAT for D007 Wastewaters.* Treatment data available to the Agency indicate that chemical reduction processes can convert a significant range of concentrations of hexavalent chromium in wastes to chromium in the trivalent state using chemical reducing agents such as sulfur dioxide, sodium bisulfite, metabisulfite, hydrosulfite, or ferrous sulfate. The trivalent chromium is then removed, usually by hydroxide precipitation. The Agency has treatment data on chromium reduction followed by precipitation and sludge dewatering for K062 wastes. The Agency believes that K062 would be similar or more difficult to treat than D007 wastes because of the high concentration of chromium and other metals in K062 wastes. Therefore, the Agency is transferring the performance data for K062 to D007 wastewaters and is proposing a treatment standard of 0.32 mg/l. The Agency is soliciting additional treatment performance data, including data on ion exchange processes which can remove hexavalent chromium directly from wastewaters.

(2) *Identification of BDAT for D007 Nonwastewaters.* Treatment data available to the Agency indicate that D007 nonwastewaters can be treated by stabilization provided the chromium has been reduced to the trivalent state. The Agency has performance data from the stabilization of F006 wastes that contain high concentrations of chromium. The data indicates that total chromium can be stabilized to 5.2 mg/l as analyzed by the TCLP analysis. For the K062 nonwastewaters, the concentration of total chromium in the nonwastewaters did not need to be stabilized. The reason was during the precipitation step, the treater added lime such that it reduced the mobility of chromium and other metals that were present in the wastes.

This information justifies that fact that chromium wastes can be easily stabilized.

Therefore, the Agency has two sets of treatment data for chromium containing nonwastewaters. The Agency believes that the F006 wastes could have contained hexavalent chromium as opposed to trivalent chromium. The reason for this is that the Agency believes that a F006 waste is generated from the treatment of electroplating rinsewaters by alkaline chlorination treatment rather than a chromium reduction treatment. An alkaline chlorination process would not reduce the hexavalent chromium to trivalent. Therefore the Agency is proposing a treatment standard for D007 nonwastewaters of 0.094 mg/l based on an analysis of TCLP extracts and based on the performance of chromium reduction followed by lime and sulfide precipitation and dewatering for K062 wastes. The Agency is soliciting comments and treatment data from industry on whether this treatment standard is achievable for all D007 nonwastewaters. If comments indicate that the standard is not achievable, the Agency may promulgate the 5.2 mg/l treatment standard based on a transfer of the performance of stabilization for the F006 wastes.

(3) *Identification of BDAT for Calcium Chromate.* In today's proposed rule, the Agency is proposing wastewater and nonwastewater concentration-based treatment standards for chromium in this waste (U 032). BDAT for wastewaters and nonwastewaters are based on a transfer of the treatment performance of chemical reduction followed by lime/sulfide precipitation and filtration for K062 wastes.

The Agency believes that the transfer of the performance data for the treatment of K062 to calcium chromate wastewaters is technically feasible due to the high concentration of chromium in K062 wastewater.

#### BDAT TREATMENT STANDARDS FOR D007 AND U032

[Nonwastewaters]

Regulated constituent	Maximum for any single grab sample
	TCLP (mg/l)
Chromium (Total).....	0.094

#### BDAT TREATMENT STANDARDS FOR D007 AND U032

[Wastewaters]

Regulated constituent	Maximum for any single grab sample
	Total composition (mg/l)
Chromium (Total).....	0.32

#### f. Lead

D008—EP toxic for lead  
P110—Tetraethyl lead  
U144—Lead acetate  
U145—Lead phosphate  
U146—Lead subacetate

Lead appears in Group IV of the periodic table. Lead, as a metal, is used as an industrial raw material in the manufacture of batteries, pigments, leaded glass, fuels, photographic materials, matches, explosives, and in electroplating baths. Lead is also used in the iron and steel industry and in the mining industry. Typically the lead in the D008 nonwastewaters may appear as lead in its elemental form (i.e., solid lead) or as chemical salts. In aqueous solutions (such as wastewaters), lead can easily be precipitated by adding lime, carbonate, or sulfides. This behavior is important, in that selection and performance of treatment technologies for lead is somewhat similar to other metals, based on this cationic behavior in aqueous conditions. Lead salts typically contain lead in the divalent state and are mostly insoluble in water. The nitrate,  $Pb(NO_3)_2$ , and the acetate,  $Pb(C_2H_3O_2)_2$ , are the only common soluble salts. The solubility of these two salts form the basis for certain analytical determinations of lead concentrations in some particular matrices.

The treatment standards presented in today's preamble for all lead wastes are based on a limited amount of treatment data. In this notice, the Agency is soliciting data on the characterization and treatment of all wastes containing lead. Copies of any additional data pertaining to these proposed treatment standards that may be submitted during the public comment period can be requested in writing by identifying the request for data as "Additional data on treatment of lead—Section III.A.5.e.". See Section III.A.1.i. of today's preamble for information on procedures for requesting additional data on specific standards.

(1) *Treatment Standards for Wastewaters.* When evaluating



treatment technologies to establish wastewater treatment standards for lead wastes, the Agency believes that it must consider not only the efficiency of removal of lead from the wastewater, but also the chemical state of the precipitated lead salts that end up in the wastewater treatment residuals.

Most of the data indicates that lead oxides can be removed from wastewaters by using carbonate or hydroxide as precipitating reagent. In most precipitation treatment systems, two factors influence lead removal. These are lead solubility and lead precipitate settleability. Lead oxides are more insoluble in carbonate rather than lead hydroxide. (Note: Lead hydroxide is actually amphoteric and will become more soluble as the pH moves beyond optimum insolubility.) This suggests that a method of treatment for lead in wastewaters should be precipitation with carbonate, followed by sludge dewatering. The Agency is requesting comments on the approach of specifying a precipitant with the method of treatment.

The Agency has data on the treatment of wastewaters containing lead by precipitation with lime and sulfide filtration, and settling for K062 and D008 mixed wastes. The Agency believes that these data represent a matrix that is very difficult to treat since it consists of other dissolved metals in concentrations up to 7,000 ppm. While the lead concentration in K062 waste ranged up to only 200 ppm, treatment by precipitation acts to concentrate the lead in the sludge. K062 wastewaters were treated by chemical reduction, followed by precipitation with lime and sulfide and sludge dewatering. The sludge generated from this process contained leachable lead concentrations of less than 0.10 mg/l, indicating that the sludge did not need further treatment. The wastewater residual from this treatment contained lead concentrations of less than 0.01 mg/l. These data indicate that the performance of precipitation with lime and sulfide can achieve concentration levels lower than the EP toxic concentration for lead (i.e., 5 mg/l).

Therefore, the Agency is proposing two options for treatment standards for D008 wastewaters. The first option is a treatment standard of 0.04 mg/l lead for all D008 wastewaters. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of Section 3004

(m). However, the Agency is proposing a second option of limiting the treatment standards for D008 wastewaters to the characteristic level of 5.0 mg/l. The Agency specifically solicits comments on these two options. The Agency also solicits comment on use of the standards developed for the secondary and primary lead industries as part of the Agency's effluent limitations guidelines program.

The constituents for which U144, U145, and U146 wastes are listed are all soluble salt forms of lead. The constituents for which P110, U144, and U146 are listed are organic forms of lead. While all of these wastes are typically generated as nonwastewaters, the Agency expects that wastewater forms of these wastes may be generated from incidental spills or from a treatment process itself, and thus would require treatment standards. The Agency expects that untreated wastewaters will be more dilute than the untreated K062 wastewaters that were used to develop the treatment standards, and thus would be expected to be less difficult to treat.

Given that: (1) U144, U145, and U146 are all soluble lead compounds, (2) untreated K062 wastewaters are expected to be more difficult to treat than untreated P110, U144, U145, and U146 wastewaters, and (3) the performance data demonstrate that the lead in K062 wastewaters can effectively be removed, EPA is proposing to transfer K062 performance data and concentration-based treatment standard of 0.04 mg/l for P110, U144, U145, and U146 wastewaters.

(2) *Treatment Standards for Nonwastewaters Containing Lead.* The Agency has identified many types of D008 nonwastewaters that are different, and can be classified as those wastes that can be stabilized, recycled, and incinerated. The Agency has proposed a cut-off concentration of 2.5% total lead as a means of distinguishing between those essentially inorganic nonwastewaters containing recyclable levels of lead and those which can be effectively stabilized. This cut-off level has been proposed based on a limited amount of data from both recycling and stabilization of wastes containing lead.

(a) *Standards for Wastes in the Low Lead Subcategory.* For D008 nonwastewaters, the Agency has identified two sets of stabilization data on electroplating wastewater treatment sludges (F006) and wastewater treatment sludges from explosives manufacturing (K046). Data on electroplating nonwastewaters indicate that wastes with total lead

concentration of 24,500 can be reduced to lead concentrations of 0.51 ppm using the TCLP extract test. At the same time, the Agency has treatment data for K046 wastes that contain total lead concentrations of 1,000 ppm with reductions to 0.18 ppm of leachable lead. Both of these data sets for diverse waste types indicate that conventional stabilization processes can reduce the leachability of lead to concentrations lower than the EP levels.

Therefore, using the treatment data for F006 wastes, the Agency is proposing a treatment standard of 0.51 mg/l leachable lead for D008 wastes that can be effectively stabilized. In order to define this subcategory, the Agency examined the available data and determined that total concentrations of lead up to 2.5 percent can be effectively stabilized. The Agency is proposing this level as a cut-off for those D008 nonwastewaters that can be stabilized. Based on this 2.5% level, the Agency is identifying these wastes that can be stabilized as wastes in the D008 Low Lead Subcategory. The Agency believes that these data for F006 and K046 represent the treatment of wastes that are more difficult to stabilize (due to the presence of organo-lead initiating compounds and residuals organics in the K046 wastes, and high dissolved metals and oil and grease in the F006 wastes).

As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004 (m). However, the Agency is proposing a second option of limiting the treatment standard for these D008 nonwastewater treatment sludges to the characteristic level. The Agency is soliciting comments on this approach and on the definition of stabilized D008 nonwastewaters based on a 2.5 percent cutoff concentration of lead.

(b) *Standards for High Lead Subcategory.* In determining which D008 lead wastes are amenable to thermal recovery, the Agency has data that indicate that wastes containing concentrations of lead as low as 5 percent can be recovered.

(Note: This 5% level correlates well with the proposed cut-off level of 2.5% based on the performance of stabilization.)

Thus, the Agency is defining wastes in the High Lead Subcategory as those wastes containing greater than or equal to 2.5% lead (based on an analysis of total lead concentration in the waste).



The Agency has identified some particular D008 wastes which appear to have good recovery potential, such as lead acid batteries, lead dross, and electric arc furnace dust.

Data available to the Agency indicates that lead can be recovered from electric arc furnace dust (K061) by high temperature metals recovery. Some K061 wastes contained total lead concentrations up to 14 percent, and were reduced to leachate levels well below the characteristic level of 5.0 mg/l. Based on these data, the Agency believes that residues from thermal recovery of D008 wastes containing high levels of lead will no longer leach lead above the EP toxic level. (See also the discussion on recovery of lead acid batteries and the solicitation of comments and data below.) Therefore, the Agency is proposing a treatment standard of "Thermal Recovery as a Method of Treatment" for wastes in the High Lead Subcategory.

*(c) Standards for Lead Acid Batteries Subcategory.* Currently, the Agency does not have waste characterization and treatment data from the recycling of lead acid batteries (i.e., influent lead concentrations and total and leachable residual data). Therefore, the Agency is soliciting recovery data of lead from secondary smelting operations. In particular, the Agency is interested in the minimum concentration of lead that can be recovered from other D008 wastes, the resultant waste characteristics associated with the slag (assuming that the slag is either a D008 waste, or comes from smelting a waste that is not indigenous to the industrial furnace), and any treatment data on the slag.

As a result, the Agency is proposing treatment standards for non-indigenous recyclable D008 wastes (identified as the D008 High Lead Subcategory) based on the performance of the high temperature metals recycling of K061 wastes that contain significant concentrations of lead. (Residues from recycling indigenous D008 materials would be subject to the D008 standard if such residues exhibit EP toxicity for lead, and their subcategory would be determined at the time of their generation.)

Incidentally, the Agency notes in response to inquiries from the affected industries that lead acid batteries themselves, when stored before land disposal, are not considered to be land disposed. This is because the battery is considered to be a container (see 40 CFR

264.314(d)(3)). Battery storage, however, typically is subject to the subpart J storage standards (relating to secure storage, secondary containment in some instances, and other requirements).

For the lead acid batteries treatability group, the Agency is proposing metals recovery as a method of treatment. The Agency believes that most of the treaters for lead acid batteries are using a recovery process. These standards only apply for lead acid batteries that are identified as RCRA hazardous wastes and that are not elsewhere excluded from regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80).

*(d) Standards for P110, U144, and U146 Nonwastewaters.* The Agency has determined that some nonwastewater forms of lead wastes including P110, U144, U146, and some D008 wastes, would need to be incinerated prior to stabilization due to the presence of high concentrations of organics in order to achieve a treatment standard based on stabilization. This is primarily because the organics typically interfere with conventional stabilization processes (particularly at concentrations exceeding 1% TOC). The Agency has data on the incineration of organic wastes containing up to 1,000 mg/kg lead (such as K048/K051 and K087 wastes) followed by stabilization of the ash. These data indicate that the proposed standard (i.e. 0.51 mg/l leachable lead) for D008 nonwastewaters in the Low Lead Subcategory based on stabilization can be achieved for wastes that also contain significant concentrations of organics, provided the organics are destroyed by pretreatment. The Agency is therefore proposing that this standard is applicable to those U and P lead wastes that are organo-lead compounds, i.e., P110, U144, and U146. This is further supported by the fact that the lead contained in the K048-K052 petroleum refinery wastes that were incinerated, probably was present as tetraethyl lead thus supporting the extrapolation to P110, off-specification tetraethyl lead. Lead acetate (U144) and lead subacetate (U146) are anticipated to be less difficult (or at least of similar difficulty) to treat than tetraethyl lead.

*(e) Standards for Radioactive Lead Solids Subcategory.* The Agency is also proposing treatment standards for radioactive lead solids. These lead solids include, but are not limited to, all forms of lead shielding, lead "pigs", and other elemental forms of lead. These

lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and then stabilized as ash. These wastes are different than the other D008 nonwastewaters containing high levels of lead, because of their radioactivity.

EPA does not believe that metal recovery (i.e., smelting) is an available technology for radioactive solids. Any lead recovery would be radioactive, and thus unusable. If the radioactive lead was smelted along with normal lead, the entire mass recovered would be unusable.

However, conventional stabilization technologies generally should not be impacted by the presence of radioactive versus nonradioactive lead. As a result, the Agency is not subcategorizing wastewater treatment residues and incinerator ash containing radioactive lead or other metals except for purposes of determining availability of treatment capacity (i.e., stabilization processes for radioactive materials should employ special safety precautions due to the radioactivity). Therefore, the Agency has developed a separate treatability group and BDAT for the specified radioactive lead solids.

For these radioactive lead solids, the Agency is proposing a treatment standard of "Surface Deactivation or Removal of Radioactive Lead Portions Followed by Encapsulation; or Direct Encapsulation as Methods of Treatment". The Agency believes that most radioactive lead results from the use of the elemental lead (a solid) either directly or indirectly as a shield from radioactivity. Typically, the radioactivity penetrates slowly into one side of the lead (shield), thus providing the necessary protection. Therefore, depending upon the thickness of the lead shield the radioactive portion of the lead may be able to be shaved off from the nonradioactive portion. The remaining nonradioactive lead would then be subject to the treatment standard for High Lead wastes, "Thermal Recovery as a Method of Treatment". The radioactive portion (or in some cases the entire shield or solid) would then be either macro- or micro-encapsulated into a protective material that would prevent the lead from leaching in the disposal environment.



BDAT TREATMENT STANDARDS FOR  
D008, P110, U144, U145, U146

## [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Lead .....	0.040

BDAT TREATMENT STANDARDS FOR  
P110, U144, U145, AND U146

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Lead .....	0.51

BDAT TREATMENT STANDARDS FOR D008  
LOW LEAD SUBCATEGORY—LESS THAN  
2.5%

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Lead .....	0.51

BDAT TREATMENT STANDARDS FOR D008  
HIGH LEAD SUBCATEGORY GREATER  
THAN OR EQUAL TO 2.5% LEAD

## [Nonwastewaters]

Thermal recovery as a method of treatment
BDAT TREATMENT STANDARDS FOR D008 [Lead Acid Batteries*]
Thermal recovery as a method of treatment

\*This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80).

BDAT TREATMENT STANDARDS FOR D008  
[Radioactive Lead Solids\*]

Surface deactivation or removal of radioactive lead portions followed by encapsulation; or direct encapsulation of radioactive lead solids as methods of treatment

\*These lead solids include, but are not limited to, all forms of lead shielding, lead "pigs", and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and then stabilized as ash.

## g. Mercury.

D009—EP toxic for mercury  
K071—Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used  
K106—Wastewater treatment sludges from the mercury cell process in chlorine production  
P065—Mercury fulminate  
P092—Phenylmercury acetate  
U151—Mercury

These six wastes are grouped together because they contain mercury as the primary hazardous constituent. The Agency is grouping these wastes together in order to simplify the explanation of the chemistry of mercury and the operational treatment principles of technologies for treating the related mercury wastes.

(1) *Review of Applicable Technologies for Nonwastewaters—(a) Thermal Recovery Processes.* Based on the available treatment data from thermal recovery processes for K071, K106, and for cinnabar ores, EPA is proposing thermal recovery as part of the treatment standards for many of the nonwastewater forms of these six mercury wastes. EPA has examined data on the mercury content of residues from roasting/retorting of K071 and K106 wastes, and believes that it shows substantial reductions in mercury mobility. The data indicated that mercury can be recovered from these wastes such that the residues contain less than 16 mg/kg of total mercury.

In addition, EPA believes the thermal processing of cinnabar ores simulates the roasting/retorting of mercury sulfide containing wastes. These additional data indicates that the thermal processing of cinnabar ores yields a calcinated residue containing 100 mg/kg total mercury, and none of treated residues exceed EP toxicity Levels for mercury. As a result, EPA is proposing to use the lowest concentration based number achieved by these two sets of thermal recovery data, i.e., the 16 mg/kg, to reflect the level of mercury amenable to recovery.

It is not clear from the available data whether organo-mercury wastes (like P065 and P092) can be retorted directly, or if the organic fraction must be destroyed first. Consequently, for certain organo-mercury wastes, EPA is proposing an initial treatment step to destroy the organics followed by thermal recovery of mercury if the incineration residues contain sufficient mercury to be amenable to recovery.

The Agency is aware of other thermal processes, such as scrap metal distillation incorporating steam stripping and vacuum distillation, that are used

for recovery of mercury from debris and equipment. However, the Agency has no particular data from these processes for use in the development of treatment standards. Therefore, the Agency is soliciting data and information on these technologies.

(b) *Acid Leaching.* The promulgated treatment standards for K071 nonwastewaters in the First Third rule based on the performance of a treatment process involving acid leaching to solubilize and extract the mercury contained in the K071 brine sludge and later convert the mercury to a relatively insoluble mercury sulfide sludge. (See further discussion of proposed rule for K071 in 53 FR 11758–11759 (April 8, 1988) and final rule in 53 FR 31166–31167 (August 17, 1988).) The Agency is using these data and promulgated standards for transfer to wastes that contain less than 16 mg/kg total mercury as generated (i.e., wastes with insufficient mercury to warrant recovery). Residues from this acid leaching process must be evaluated for mercury content to determine whether they must undergo thermal recovery.

(c) *Stabilization.* Existing stabilization data for K106 nonwastewaters containing over 2% total mercury (by weight) indicate that the overall leachability of mercury from the K106 wastes actually increases with the addition of the alkaline stabilization reagents. Thus, conventional cementitious and pozzolanic stabilization processes (all of which involve alkaline materials) are not considered BDAT for wastes containing concentrations above 2% total mercury.

No data have been received on K106 stabilization using proprietary binders such as asphalts, silicates, or sulfide. While some vendors have expressed their interest in submitting data to EPA, these data have not been submitted at the time of this rule. If these data become available, anyone interested in reviewing performance data for the stabilization of K106 wastes (mercury sulfides), must request such data following the procedures described in section III.A.1.i. of today's preamble. This request should be identified as "III.A.5.g. Stabilization of Mercury Wastes".

(d) *Incineration.* EPA has information from a few facilities that indicate routine incineration of some wastes containing organo-metallics. EPA believes that these include organo-mercury wastes such as spent organo-mercury catalysts, organo-mercurials in lab packs, and paint sludges containing mercury. Thus, incineration is considered to be demonstrated to treat a



vast array of mercury-containing wastes. The mercury from these wastes is not destroyed by the incineration process but rather accumulates as inorganic mercury compounds in the ash, the scrubber water, and the wastewater treatment sludges from the treatment of the scrubber waters. Thus, the Agency is specifying further treatment of incineration residues in order to reduce the mobility or concentration of mercury to levels that more fully minimize threats to human health and the environment.

(2) *Complications of Co-disposal with Alkaline Materials.* Mercury sulfide is relatively insoluble in water under acid conditions. However, the information on the attempted pozzolanic stabilization of K106 (which is primarily mercury sulfide) indicates that the leachability (i.e., solubility) of the mercury increases under alkaline conditions. Therefore, the low solubility of mercury sulfide must be balanced against the potential for leachability of the resulting wastewater treatment sludges during co-disposal with alkaline wastes or materials. This potential for increased leachability under these conditions is a legitimate concern, in that some operators of hazardous landfills co-dispose all "metal" wastes and it is typical practice to add excess lime to prevent migration of the other metals prior to disposal.

The Agency solicits comment on whether it should establish disposal requirements under 40 CFR parts 264 and 265 for all mercury sulfide wastewater treatment residuals in the Low Mercury Subcategory which would require segregation of the treatment residuals from alkaline materials (in either monofills or separate subcells within a landfill). Such a requirement would be a type of management standard designed to prevent co-disposal of incompatible wastes. By soliciting comment, EPA notes that these proposed requirements may be promulgated as additional requirements to meeting the proposed concentration-based TCLP standards.

The Agency also solicits comment on an alternative of simply classifying D009, K071, K106, P065, P092, and U151 nonwastewaters in the Low Mercury Subcategory as "incompatible" with alkaline wastes like hydroxide sludges. The basis would be the increased potential for leachability of the mercury when exposed to alkaline pH.

(3) *Standards for All Wastewaters.* The Agency has identified ion exchange, carbon disulfide sorption, chemical oxidation/reduction, chemical precipitation, or combinations of these technologies as applicable technologies to treat inorganic mercury wastewaters.

Chemical oxidation/reduction processes typically alter the chemical valence of mercury species for subsequent precipitation or removal by ion exchange or carbon disulfide sorption.

While ion exchange and carbon disulfide sorption may be used directly on a mercury-containing wastewater, all of the mercury must be in the proper valence state. Typically these two removal technologies are used primarily as polishing steps after precipitation. Several facilities are believed to be treating mercury wastewaters with ion exchange or carbon disulfide sorption. However, the Agency lacks sufficient wastewater treatment data based on the use of these two technologies.

The Agency has data on precipitation of mercury from wastewaters identified as K071 from the chlor-alkali industry using sulfide as the precipitant. The Agency believes that these data represent a matrix that is difficult to treat since it consists of a mixture of different forms of inorganic mercury. The data show that this precipitation process provides effective treatment and removal of mercury from these wastewaters because it reduces the concentration of mercury in the wastewater to levels below the characteristic level of 0.2 mg/l.

Based on these treatment data, the Agency is proposing a treatment standard of 0.030 mg/l mercury for all D009 wastewaters. The Agency believes that these wastes represent the most difficult to treat wastewaters. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004(m). The Agency is also proposing a second option of limiting the treatment standard for D009 wastewaters to the characteristic level of 0.2 mg/l. The Agency specifically solicits comments on these two options.

The Agency is also proposing to transfer these performance data and standards to K106, P065, P092, and U151 wastewaters. EPA is soliciting data on the achievability of these standards for all mercury wastewaters. In particular, the Agency solicits data characterizing the untreated and treated mercury-contaminated wastewaters that are routinely generated, information pertinent to the design and operation of their wastewater treatment technologies, and information pertinent to the manufacturing processes generating these mercury-bearing wastewaters.

Some mercury-containing wastewaters may require more extensive treatment trains in order to treat hexavalent chromium, other metals, and organics which could possibly interfere with the treatment of the mercury. A reduction step for hexavalent chromium and an oxidation step (with reagents such as hydrogen peroxide or hypochlorite) may be necessary to treat the organics. In addition, complexed organometallics which may be present will probably have to be oxidized or otherwise removed prior to conversion of the mercury to their proper valence state for further metal treatment by precipitation. However, the Agency currently lacks reliable data that indicate that the proposed concentration-based standards cannot be achieved for these types of wastes. Nevertheless, EPA anticipates that pretreatment steps such as hexavalent chromium reduction and chemical oxidation of organics may be necessary and these pretreatment steps could remove these potential interferences. This is further supported by the fact that quantitative analytical methods for mercury in waste samples include such pretreatment steps to remove the interferences during analysis. The Agency specifically solicits comments on the applicability of these and other pretreatment technologies for mercury-containing wastewaters and data that indicate the achievability of the proposed wastewater standard.

(4) *Standards for K106 and U151 Nonwastewaters.* The Agency previously proposed treatment standards for K106 wastes based on retorting in the First Third proposed rule (53 FR 17578, May 17, 1988). The proposed standards, however, were not promulgated because, at that time, there was insufficient information to support the transfer from the retorting of mercury sulfide ores or other mercury wastes that the Agency believed were similar to the K106 wastes (53 FR 31173-31174, August 17, 1988). The Agency has since collected performance data on the thermal processing of cinnabar ores that the Agency believes simulates the roasting/retorting of mercury sulfide containing wastes. (See section III.A.5.g.(1)(a.) above).

The Agency is proposing to establish a High Mercury Subcategory and a Low Mercury Subcategory for K106 and U151 nonwastewaters based on a cut-off of 16 mg/kg. For wastes in the High Mercury Subcategory (i.e., containing greater than or equal to 16 mg/kg total mercury) the Agency is proposing a treatment standard of "Roasting or Retorting as a



Method of Treatment". Since it is likely that K106 and U151 wastes will be considered indigenous to the thermal recovery processes, the residues from these processes would no longer be considered K106 or U151. However, if these wastes are EP toxic for mercury (D009) they must then comply with the appropriate standards for D009 wastes (i.e., High or Low Mercury Subcategory) presented below.

For K106 and U151 nonwastewaters in the Low Mercury Subcategory (i.e., less than 16 mg/kg total mercury) the Agency is proposing a treatment standard of 0.025 mg/l mercury measured in a TCLP leachate based on the transfer of performance of acid leaching data for K071 nonwastewaters. (See section III.A.5.g.(1.) above.) Residues from this acid leaching process must be evaluated for mercury content to determine whether they must undergo thermal recovery. K106 and U151 nonwastewaters that contain less than 16 mg/kg total mercury and that also leach less than 0.025 mg/l mercury (as measured in the TCLP extract) are considered to have met the BDAT and can be land disposed.

(5) *Proposed Revisions of K071 Nonwastewaters.* The Agency promulgated treatment standards for K071 nonwastewaters with the First Third Final Rule based on the performance of a treatment process involving an acid leaching to solubilize and extract the mercury contained in the K071 brine sludge and later convert the mercury to a relatively insoluble mercury sulfide sludge. (See further discussion of proposed rule for K071 in 53 FR 11758-11759 (April 8, 1988) and final rule in 53 FR 31166-31167 (August 17, 1988).)

The Agency is proposing to create a new subcategory identified as K071 High Mercury Subcategory and is thus proposing to partially replace the K071 nonwastewater treatment standard previously promulgated. Thus, for K071 nonwastewaters in the High Mercury Subcategory (i.e., greater than or equal to 16 mg/kg total mercury) the Agency is proposing a treatment standard of "Roasting or Retorting as a Method of Treatment". (See also discussion for K106 and U151.) The Agency is also proposing to create a new subcategory identified as Low Mercury Subcategory, i.e., less than 16 mg/kg total mercury, for K071 nonwastewaters and is retaining the promulgated standard (0.025 mg/l mercury based on analysis of a TCLP extract) for these wastes.

(6) *Standards for P065 and P092 Nonwastewaters.* Mercury fulminate (P065) and phenylmercury acetate (P092) are mercury compounds containing

carbon. The Agency has determined that incineration represents part of the BDAT for P065 and P092 nonwastewaters. This is because incineration is demonstrated for destruction of carbon-metal bonds in organo-metallics, and may be necessary to make mercury available for recovery. (See discussion of incineration in section III.A.5.g.(1.) (a.) and (c.) above.) Also, the Agency notes that available information for P065 indicates that mercury fulminate can be destroyed in an incinerator designed to destroy explosive wastes. (Detailed information on the treatment methods identified for mercury fulminate can be found in the Department of the Army Technical Manual, TM-9-1300-214, Military Explosive, September 1984).

Incineration of P065 and P092 will not destroy mercury, which will end up in the residues. The residues therefore must be treated further. This is reflected in the proposed standard for these wastes: "Incineration followed by roasting or retorting of incinerator nonwastewater residues (ash and wastewater treatment sludges from the treatment of incinerator scrubber waters) provided such residues exceed 16 mg/kg total mercury; and scrubber waters from incineration must comply with the 0.030 mg/l wastewater standard" for D009, K106, P065, P092, and U151 wastewaters.

In other words, residues from incinerating these wastes (including wastewater treatment sludges from the treatment of scrubber waters) require further treatment for mercury. For nonwastewaters, if the residues contain sufficient mercury to warrant recovery (16 mg/kg total mercury) they would have to be roasted or retorted. If not, they would have to meet the standard for low mercury wastes. Scrubber waters would be required to meet the same standard applicable to all wastewaters within the mercury treatability group. Thus, for these wastes, incineration serves as a type of pretreatment, and nonwastewaters from incineration are then evaluated to determine if they are in the High or Low Mercury Subcategory, and the appropriate treatment standard for mercury applies.

(7) *Standards for D009 Nonwastewaters.* Treatment standards for D009 nonwastewaters in the High Mercury Subcategory are being proposed based on a combination of the standard for K106 and that for P065 and P092. The main reason for this is that D009 wastes may be contaminated with organics or other organo-mercury constituents (along with inorganic mercury). EPA is thus proposing a standard for D009 nonwastewaters in

the High Mercury Subcategory of "Roasting or retorting as a method of treatment; or incineration followed by roasting or retorting of incinerator nonwastewater residues (ash and wastewater treatment sludges from the treatment of incinerator scrubber waters) provided such residues exceed 16 mg/kg total mercury". As a result, if the organic content is too high for the retorting or roasting, incineration would be required as a pretreatment step. The Agency considered proposing a subcategory of organic-mercury wastes; however, the Agency had no means of establishing a definition for these wastes. Thus, the Agency is soliciting data and comment that would assist the Agency in subdividing this standard according to the organic content.

(8) *Standards for Radioactive Wastes Containing Mercury.* Information provided recently to EPA by the United States Department of Energy (DOE) indicates the generation of two particular mixed radioactive/hazardous wastes that contain mercury. This information also suggests that the BDAT technologies and standards proposed for the corresponding nonradioactive wastes may not be applicable. The Agency, therefore, has developed alternative treatment standards for these wastes which are presented in the following section.

(a) *Elemental Mercury.* Elemental mercury is typically found in vacuum pumps and related manometers. In the nuclear industry, this form of mercury has been contaminated with radioactive tritium (a radio-isotope of hydrogen). These wastes are often identified as D009 or U151. The treatment standard proposed for the nonradioactive wastes of this type is "Roasting or Retorting as a Method of Treatment". However, the Agency has no data or information that would indicate that these processes would be able to separate the mercury from the radioactive material (i.e., tritium) resulting in a reusable mercury. Thus, the Agency believes that these processes would not necessarily be applicable to these wastes and therefore developed a proposed standard based on the following information.

As a result of the high vapor pressure associated with elemental mercury in the liquid form, the predominant safety concern with the mercury in these wastes is from air emissions. One method that has been developed to handle spills of nonradioactive liquid mercury involves the application of elemental zinc powder to areas that have been contaminated with the mercury (the visible droplets of liquid mercury are physically collected in a



separate step before application of the zinc). The zinc is dampened with dilute sulfuric acid (5-10%) until a paste is formed. This paste is then collected for disposal. The mercury forms an amalgam with the zinc providing a significant reduction in air emissions of mercury. (EPA prefers this procedure over the conventional spill cleanup procedures involving addition of calcium polysulfide or flowers of sulfur because use of zinc results in lower air emissions of mercury.)

The Agency currently has no information on whether this procedure will reduce the overall leachability of mercury. However, the Agency has determined that this procedure does provide significant treatment due to the decrease in air emissions, the change in mobility from liquid mercury to a paste-like solid, and the potential reduction in leachability due to the amalgamation with the zinc. Based on this information, the general lack of treatment data, the lack of alternative technologies, and the unique handling problems associated with the radioactivity, the Agency is proposing a treatment standard for D009 and U151 elemental mercury wastes contaminated with radioactive materials of "Amalgamation with Zinc as a Method of Treatment". Roasting, retorting or other recovery process are not precluded from use by this standard as long as all residuals from these recovery processes comply with the amalgamation treatment standard prior to land disposal.

(b) *Hydraulic Oil Contaminated with Mercury.* The DOE also indicated the generation of a hydraulic oil that is contaminated with mercury and tritium. EPA is assuming that the hydraulic oil referred to by DOE is organic and can be incinerated. EPA has determined that the technologies applicable to nonradioactive mercury wastes that contain high levels of organics are incineration followed by roasting or retorting of all of the inorganic residues and wastewater treatment for the scrubber waters. (See the exact proposed standards for P085 and P092 nonwastewaters above.)

The Agency is proposing to modify this standard for this type of radioactive mercury waste by removing the requirement to recover mercury from the inorganic residues. Because the Agency is uncertain that roasting or retorting will be able to recover a reusable mercury (i.e., nonradioactive) from these residues, the Agency is proposing a treatment standard of "Incineration as a Method of Treatment with incinerator residues meeting the following: (1) Ash and wastewater treatment sludges from

the treatment of scrubber waters must comply with a TCLP concentration of 0.025 mg/l; and (2) Scrubber waters must comply with a total concentration of 0.030 mg/l wastewater standard" for D009 Hydraulic Oil Contaminated with Radioactive Materials.

#### BDAT TREATMENT STANDARDS FOR D009, K106, P065, P092, AND U151

[Wastewaters]

Regulated constituent	Maximum for any single grab sample
	Total composition (mg/l)
Mercury.....	0.030

#### BDAT TREATMENT STANDARDS FOR K106 AND U151

[Nonwastewaters]

[High Mercury Subcategory—Greater than or equal to 16 mg/kg total mercury]

Roasting or Retorting as a Method of Treatment

#### BDAT TREATMENT STANDARDS FOR K106 AND U151

[Nonwastewaters]

[Low Mercury Subcategory—Less than 16 mg/kg total mercury]

Regulated constituent	Maximum for any single grab sample
	TCLP (mg/l)
Mercury.....	0.025

#### BDAT TREATMENT STANDARDS FOR K071\*

[Nonwastewaters]

[High Mercury Subcategory—Greater than or equal to 16 mg/kg total mercury]

Roasting or Retorting as a Method of Treatment

\* This standard creates a new subcategory identified as K071 High Mercury Subcategory and would replace the K071 nonwastewater treatment standard promulgated August 17, 1988 (53 FR 31167) for wastes that would now fall into this new subcategory.

#### BDAT TREATMENT STANDARDS FOR K071\*

[Nonwastewaters]

[Low Mercury Subcategory—Less than 16 mg/kg total mercury]

Regulated constituent	Maximum for any single grab sample
	TCLP (mg/l)
Mercury.....	0.025

\* This standard is the same as the standard for K071 nonwastewaters promulgated August 17, 1988 (53 FR 31167), but now would only be applicable to the new subcategory identified as the K071 Low Mercury Subcategory.

#### BDAT TREATMENT STANDARDS FOR P064 AND P092

[Nonwastewaters]

Incineration Followed by Roasting or Retorting of Incinerator Nonwastewater Residues (Ash and Wastewater Treatment Sludges from Treatment of the Incinerator Scrubber Waters) Provided Such Residues Exceed 16 mg/kg Total Mercury; and Scrubber Waters from Incineration Must Comply With the 0.030 mg/l Wastewater Standard

#### BDAT TREATMENT STANDARDS FOR D009

[Nonwastewaters]

[High Mercury Subcategory—Greater than or equal to 16 mg/kg total mercury]

Roasting or Retorting as a Method of Treatment; or Incineration Followed by Roasting or Retorting of Incinerator Nonwastewater Residues (Ash and Wastewater Treatment Sludges from Treatment of the Incinerator Scrubber Waters) Provided Such Residues Exceed 16 mg/kg Total Mercury

#### BDAT TREATMENT STANDARDS FOR D009

[Nonwastewaters]

[Low Mercury Subcategory—Less than 16 mg/kg total mercury]

Regulated constituent	Maximum for any single grab sample
	TCLP (mg/l)
Mercury.....	0.025

#### BDAT TREATMENT STANDARDS FOR D009 AND U151 ELEMENTAL MERCURY CONTAMINATED WITH RADIOACTIVE MATERIALS

Amalgamation with Zinc as a Method of Treatment



**BDAT TREATMENT STANDARDS FOR D009  
HYDRAULIC OIL CONTAMINATED WITH  
MERCURY AND RADIOACTIVE MATERI-  
ALS**

Incineration as a Method of Treatment with Incinerator Residues Meeting the Following: (1) Ash and Wastewater Treatment Sludges from Treatment of the Incinerator Scrubber Waters Must Comply with a TCLP Concentration of 0.025 mg/l; and (2) Scrubber Waters must Comply with a Total Concentration of 0.030 mg/l Wastewater Standard)

*h. Silver.* The Agency has identified three hazardous wastes that potentially contain high levels of silver. These include P099 (potassium silver cyanide), P104 (silver cyanide), and D011 (EP toxic for silver; 5.0 mg/l silver as measured in an EP leachate). Treatment standards for cyanides contained in P099 and P104 wastes were promulgated with the Final Rule for Second Third Wastes (54 FR 26614 (June 23, 1989)). At the same time, treatment standards for silver in P099 and P104 wastewaters were not promulgated based on the lack of treatment data. Today's notice proposes treatment standards for P099 and P104 wastewaters and all D011 wastes.

Silver is part of the Group I elements and has chemical properties similar to lead and mercury. In aqueous conditions silver typically exists as a monovalent, cationic species. This behavior is important, in that selection and performance of treatment technologies for silver is somewhat similar to most other metals based on this cationic behavior in aqueous conditions. However, due to differences in solubilities of certain salts of silver compared to other metals, treatment technologies for both wastewaters and nonwastewaters containing silver are slightly different compared to wastes containing only other metal constituents.

The treatment standards presented in today's preamble for all silver wastes are based on a limited amount of treatment data. In this notice, the Agency is soliciting data on the characterization and treatment of all wastes containing silver. Copies of any additional data pertaining to these proposed treatment standards that may be submitted during the public comment period, can be specifically requested in writing by identifying the request for data as "additional data on treatment of silver—section III.A.5.h.". See section III.A.1.i. of today's preamble for additional information on procedures for requesting additional data on specific standards.

(1) *Identification of BDAT for Wastewaters.* When evaluating

treatment technologies to establish wastewater treatment standards for silver wastes, the Agency believes that it must consider not only the efficiency of removal of silver from the wastewater, but also the physical and chemical state of the precipitated silver salts that end up in the wastewater treatment residues.

Some data indicate that silver can be removed from wastewaters by using lime (calcium hydroxide) or caustic (sodium hydroxide) as a precipitating reagent (resulting in precipitation of the silver as a hydroxide salt (silver hydroxide)). However, silver is typically precipitated as a chloride salt (silver chloride) using a soluble chloride salt as a precipitating reagent. Most other cationic metals are typically removed from wastewaters based on precipitation as hydroxides, carbonates or sulfides. While silver hydroxide is slightly soluble in water, silver chloride is relatively insoluble in water. Although lime or caustic may be effective in precipitating silver from wastewaters, chloride precipitation should result in a precipitate that is less soluble in water than the hydroxide salt.

Due to the relatively higher solubility of silver hydroxide (compared to silver chloride), there exists a reasonable potential for an increase in leachability of silver from the resulting wastewater treatment sludge containing silver as a chloride during co-disposal with alkaline wastes or materials. This potential for increased leachability under these conditions is a legitimate concern, in that some operators of hazardous landfills co-dispose all "metal" wastes and it is typical practice to add excess lime to prevent migration of the other metals prior to disposal.

Thus, EPA solicits comments on whether it should (as part of the treatment standard) specify the use of chloride as the precipitating reagent for all wastewaters containing silver. In a similar manner, the Agency solicits comment on whether it should establish disposal requirements under 40 CFR parts 264 and 265 for all silver wastewaters that would include chloride precipitation followed by segregation of the treatment residuals from alkaline materials (i.e., in either monofills or separate subcells within a landfill). In doing so, EPA notes these proposed requirements may then be promulgated as additional requirements to meeting the proposed concentration-based standards.

The Agency has information that sulfide has been used to precipitate silver contained in photoprocessing wastewaters. Also, ion exchange of

silver has been reported as achieving extremely high removal efficiencies. The Agency is soliciting data on the efficiency of these treatment technologies for D011 wastes.

For some silver wastewaters more extensive treatment trains may be necessary in order to treat hexavalent chromium, other metals, and organics which could possibly interfere with the treatment of the silver. A reduction step for hexavalent chromium and an oxidation step (with reagents such as hydrogen peroxide or hypochlorite) may be necessary to treat the organics. However, the Agency currently lacks data that indicate that the proposed concentration-based standards cannot be achieved for these type of wastes and anticipates that pretreatment steps such as hexavalent chromium reduction and chemical oxidation of organics could remove these potential interferences. The Agency specifically solicits comments on the applicability of these and other pretreatment technologies for silver wastewaters and data that indicate the achievability of the concentration-based standards proposed in the following sections.

The Agency has very little data on precipitation of silver from RCRA hazardous wastewaters identified as P099, P104, or D011. However, the Agency's does have data from its analysis of various treated wastewater under the Agency's Effluent Guideline Program. In the absence of treatment data specific to P099, P104, or D011 wastewaters, the Agency believes that these data from the Effluent Guidelines Program can be transferred to develop treatment standards for P099, P104, or D011 wastewaters. The data show that the treatment provided by these industries can reduce the concentration of silver in the wastewater of levels below the characteristic level of 5.0 mg/l.

Therefore, the Agency is proposing two options for treatment standards for D011 wastewaters. Based on these treatment data, the Agency is proposing a treatment standard of 0.29 mg/l silver for all D011 wastewaters as one option. As discussed in detail in section III.C. of today's preamble, the Agency has initially determined that it has the authority to establish treatment standards below the characteristic level for these wastes or at least to make failure to treat to the lower level a violation of section 3004(m). The Agency is also proposing a second option of limiting the treatment standard for D011 wastewaters to the characteristic level of 5.0 mg/l. The Agency specifically solicits comments on these two options.



Based on this same data, the Agency is also proposing a treatment standard for silver in P099 and P104 wastewaters of 0.29 mg/l of silver. While P099 (potassium silver cyanide) and P104 (silver cyanide) wastes are typically generated as nonwastewaters, the Agency expects that wastewater forms of these wastes may be generated from incidental spills or from the treatment process itself and thus would require treatment standards. The Agency expects that untreated wastewaters will be relatively dilute, and thus would not be expected to be difficult to treat. The Agency points out that it is not reopening the promulgated treatment standards for cyanides in P099 and P104 for comment.

(2) *Identification of BDAT for Nonwastewaters.* The Agency is proposing several options for treatment standards for D011 nonwastewaters. These options are based on the inherent economic value of silver and the general lack of treatment data for wastes containing various levels of silver.

For nonwastewater forms of D011, the Agency believes that the silver can be dissolved or leached using an appropriate media (each chemical form of silver may require a different dissolving media) and either reprecipitated as the chloride or hydroxide or better yet, recovered for its inherent economic value through processes involving electro-deposition or electro-winning. As an example, while silver chloride is generally insoluble in dilute acids, it is considerably soluble in strong ammonia (NH<sub>4</sub>OH) and could theoretically be leached by ammonia and recovered. The Agency believes that due to the relatively high economic value of silver, an economic incentive already exists for most generators to investigate all recovery options as well as source reduction techniques to prevent generation. The Agency is thus proposing one option for D011 nonwastewaters treatment standards as "Recovery as a Method of Treatment".

However, the Agency does not think that at very low concentrations (i.e., just above the EP level) and low waste volumes, recovery may not be a viable alternative for D011 wastes. Therefore, the Agency investigated the availability of stabilization data for wastes containing silver. Treatment standards for silver in nonwastewater forms of P099 and P104 were promulgated in the Second Third Rule (53 FR 26615, (June, 23, 1989)). These standards were transferred from stabilization data for F006 nonwastewaters. However, these data represent the stabilization of a

waste that originally contained low concentrations of silver. The Agency received no comments disputing the achievability of the silver standards for P099 and P104 wastes, even though the Agency anticipates that these wastes could contain reasonably high levels of silver. As a result, the Agency is proposing the same concentration-based standards for silver in D011 nonwastewaters. However, the Agency is concerned about the validity of the transfer of these standards to D011 wastes that contain high levels of silver, and is thus proposing "Recovery or Stabilization as Methods of Treatment".

EPA is currently unaware of any silver wastes contaminated with high levels of organics being generated on a routine basis. If these wastes do exist, the Agency believes that these wastes can be incinerated prior to stabilization of the ash. The Agency is soliciting information on whether these wastes actually exist, the concentration of silver and organics within these wastes, and treatment data for these wastes. If the Agency finds that these wastes do exist and treatment data is submitted, the Agency may define these wastes as a separate treatability group based on the level of organics and silver and promulgate the resultant concentration-based standards based on these data. However, information is submitted that these wastes exist but no treatment data are submitted from which concentration-based standards can be developed, the Agency may promulgate "Incineration Followed by Stabilization as a Method of Treatment" for these wastes.

#### BDAT TREATMENT STANDARDS FOR D011, P099, AND P104

##### [Wastewaters]

Regulated constituent	Maximum for any 24 hour composite sample, total composition (mg/l)
Silver .....	0.29

#### BDAT TREATMENT STANDARDS FOR D011

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Silver .....	0.072

##### i. *Thallium*

P113—Thallic oxide  
P114—Thallium selenite  
P115—Thallium (I) sulfate  
U214—Thallium (I) acetate

U215—Thallium (I) carbonate  
U216—Thallium (I) chloride  
U217—Thallium (I) nitrate

In today's notice, the Agency is proposing wastewater and nonwastewater treatment standards for P113, P114, P115, U214, U215, U216, and U217 thallium wastes. The Agency has been able to identify only one manufacturer of Thallium wastes. (In fact, the Bureau of Mines estimates the production of thallium as only 4,000 pounds per year.) Most of thallium compounds are used in research, in the electrical industry for the production of thallium activated sodium iodide crystals, in the glass industry as low melting alloys, and as catalysts in the organic chemical industry.

(1) *Wastewaters.* The Agency has reviewed characterization data from the Generator Survey and the TSDR Survey for thallium wastewaters. Based on the information from these surveys, most thallium wastewaters are characterized as metallic acidic liquids. There may be other metals such as lead, nickel, and zinc present within the wastes. The concentration of thallium in these wastes range from 0.1–10 ppm.

The Agency has information indicating that thallic hydroxide compounds are very insoluble. The Agency is proposing to use this information to extrapolate treatment standards to these thallium wastes. The Agency believes that because thallic hydroxide is so insoluble, if these thallium wastes are treated by chemical oxidation followed by chemical precipitation with hydroxide reagents, settling and filtration, most of the thallic compounds will precipitate out in the sludge. Therefore, BDAT for thallium wastewaters is chemical oxidation followed by chemical precipitation with hydroxide reagents, settling and filtering. The treatment standard being proposed today is based on the detection limit of thallium in wastewaters.

As an alternative, the Agency has recently analyzed additional wastewater treatment data primarily from the Agency's Office of Water for incorporation into the treatment standards for many of the U and P wastes in this section. These data include the treatment of wastewaters that are not specifically listed as U or P wastewaters, but do contain many metal constituents. While these data were not available in time to incorporate into this discussion or into the background document for these wastes, these data are being placed in the administrative record for today's notice. Therefore, the Agency is not precluded from using



these data in promulgating the standards for these wastes. Further information on these data can be found in section III.A.1.h.(6.). The resultant alternative standard calculated for thallium in wastewaters is 1.400 mg/l.

(2) *Nonwastewaters.* The Agency is proposing several options for treatment standards for P113, P114, P115, U214, U215, U216, and U217 nonwastewaters. These options are based on the inherent economic value of thallium and the general lack of treatment data for wastes containing various levels of thallium.

Based on information from the Generator Survey, most of the thallium nonwastewaters are characterized as inorganic salts used as research chemicals, off-specification, or out-dated materials. Because of the insolubility of thallic hydroxide compounds and the information that suggest that these thallium compounds are mostly inorganic, the Agency believes that P113, P114, P115, U214, U215, U216, and U217 nonwastewaters are also primarily inorganic and therefore can be stabilized. Thus, the Agency is proposing that stabilization is also BDAT for the nonwastewaters. In addition, the Agency believes that due to the relatively high economic value of thallium, an economic incentive already exists for most generators to investigate all recovery options as well as source reduction techniques to prevent generation. However, the Agency does not think that at very low concentrations and low waste volumes, recovery may not be a viable alternative for thallium wastes. The Agency is thus proposing for a nonwastewater treatment standard of "Recovery or Stabilization as a Method of Treatment" for P113, P114, P115, U214, U215, U216, and U217.

The Agency is also soliciting comments on the regulation of P114 (thallium selenite). In section III.A.5.b. of today's rule, the Agency is proposing a concentration-based treatment standard for D010 nonwastewaters based on vitrification data for arsenic. Thus, the Agency is proposing "Vitrification or Stabilization as a Method of Treatment" for P114 nonwastewaters and is soliciting comments on whether vitrification is necessary to immobilize both thallium and selenium. The Agency is soliciting comments on potential cut-off levels for thallium wastes that can be recovered versus those that can be stabilized and any stabilization data on wastes containing thallium.

#### BDAT TREATMENT STANDARDS FOR P113, P114\*, P115, U214, U215, U216, AND U217

[Wastewaters]	
Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Thallium .....	0.14

\*Treatment standards for selenium in P114 wastewaters are presented in section III.A.5.b.

#### BDAT TREATMENT STANDARDS FOR P113, P115, U214, U215, U216, AND U217

[Nonwastewaters]
Recovery or stabilization as a method of treatment

#### BDAT TREATMENT STANDARDS FOR P114

[Nonwastewaters]
Vitrification or stabilization as a method of treatment

#### j. Vanadium.

P119—Ammonium vanadate  
P120—Vanadium pentoxide

Vanadium compounds are used primarily as alloying materials in iron and steel production or as catalysts in several chemical manufacturing processes such as adipic acid, sulfuric acid, synthetic rubber, and crude oil. Most of the vanadium produced in the United States comes from mined ores or recovery processes. Vanadium is recovered from mining ores by calcining and leaching of the calcined material. Recovery processes usually recover the vanadium in its pentoxide state. Vanadium is recovered in uranium production via liquid/liquid extraction; and the product is usually in the form of ammonium metavanadate.

The Agency believes that these wastes comprise one treatability group because they are produced from the same mined ores and are used as catalysts in similar industries. Vanadium wastes such as P119 and P120, can be generated as a fly ash or slag from the iron and steel industry or as a spent catalyst from the chemical manufacturing process. Based on information from the Generators Survey, these wastes could be classified as inorganic solids, organic liquids, or used bags or drums.

(1) *Wastewaters.* The Agency believes that P119 and P120 wastewaters could

be generated from recovery or incineration of the nonwastewater forms of P119 and P120, and as leachate from landfill closure operations. A review of the literature indicates that vanadium compounds can be treated with ferric sulfate. By treating with ferric sulfate, the vanadium is removed from the wastewaters and ferric metavanadate, which is relatively insoluble, remains in the filter cake.

The Agency has recently analyzed additional wastewater treatment data primarily from the Agency's Office of Water for incorporation into the treatment standards for many of the metal wastes in this section. These data include the treatment of wastewaters that are not specifically listed as P119 or P120 wastewaters, but do contain many metal constituents. While these data were not available in time to incorporate into this discussion or into the background document for these wastes, these data are being placed in the administrative record for today's notice. Therefore, the Agency is not precluded from using these data in promulgating the standards for these wastes. Further information on these data can be found in section III.A.1.h.(6.). The resultant alternative standard calculated for vanadium in wastewaters is 0.042 mg/l.

(2) *Nonwastewaters.* The Agency believes that P119 and P120 nonwastewaters can be generated as spent catalysts from chemical production or as fly ash from the iron and steel industry. The Agency has information indicating that nonwastewaters containing greater than seven percent of vanadium can be recovered. The Agency is proposing a treatment standard for P119 and P120 nonwastewaters of "Thermal Recovery as a Method of Treatment" based on the following: (1) P119 and P120 are generated primarily as off-spec products and would probably contain greater than seven percent vanadium due to their elemental composition, thus making them technically viable to recovery; (2) Due to these high levels of vanadium, P119 and P120 contain an inherent high economic value that acts as an incentive for most generators to investigate all recovery options as well as source reduction techniques to prevent generation; and (3) The Agency has no other treatment data for nonwastewaters containing vanadium.

However, the Agency does not think that at very low concentrations and low waste volumes, recovery may not be a viable alternative for vanadium wastes. Because these vanadium compounds are inorganic, the Agency believes that P119



and P120 nonwastewaters could be easily stabilized. Thus, the Agency is also proposing that stabilization is BDAT for the nonwastewaters. The Agency is thus proposing a treatment standard of "Recovery of Stabilization as a Method of Treatment" for P119 and P120 nonwastewaters. The Agency is soliciting comments on potential cut-off levels for vanadium wastes that can be recovered versus those that can be stabilized and any stabilization data on wastes containing vanadium.

#### BDAT TREATMENT STANDARDS FOR P119 AND P120

[Wastewaters]

Regulated constituent	Maximum for any 24 hour composite sample
	Total Composition (mg/l)
Vanadium.....	0.042

#### BDAT TREATMENT STANDARDS FOR P119 AND P120

[Nonwastewaters]

Thermal Recovery or Stabilization as a Method of  
Treatment

6. *Proposed Treatment Standards for Additional Waste Code Specific Treatability Groups.—a. Cyanide Wastes.* In the June 23, 1989 Second Third final rule, the Agency promulgated treatment standards for amenable and total cyanide constituents for the electroplating, heat treating, and acrylonitrile F and K wastes (54 FR 26610-615). The Agency transferred certain of these treatment standards to the cyanide wastes listed as P waste codes. The analytical method used to measure cyanide concentrations in treatment residues (thereby determining compliance with the treatment standard) was SW-846 Method 9010.

After promulgation of the Second Third rule, the National Association of Metal Finishers (NAMF) requested that the Agency confirm that generators of F006 nonwastewaters containing cyanides will be in compliance with the Second Third Land Disposal Restrictions if the total cyanide treatment standard (590 mg/kg) is measured using Method 9010 as currently written, that is analyzing the largest sample size practical, distilling for approximately one (1) hour, and one (1) liter distillation flask. NAMF

asserted that for certain F006 nonwastewaters the total cyanide concentration varied significantly depending on the length of distillation time and the sample size used for the analysis. Data submitted by NAMF indicated that as the sample size increased and distillation time decreased, the concentration of total cyanide increased.

EPA regards the lack of specificity as to the sample size and distillation time in the description of Method 9010 to be potential loopholes that could allow persons to misuse the analytical method in order to demonstrate compliance without treating the waste. The Agency believes that a generator or treater could analyze a large sample size (i.e., greater than 10 grams) and shorten the length of the distillation time—thereby impacting the amount of cyanides that ultimately is analyzed—in order to comply with the treatment standard. Most of the samples being analyzed for cyanides are treatment residues containing significant amounts of alkaline materials, such as lime and metal hydroxides. The analytic method uses a fixed amount of sulfuric acid (as specified in Method 9010) which amount is supposed to be sufficient to neutralize alkaline materials and to acidify the sample such that the cyanide is converted to HCN and subsequently distilled and analyzed as total cyanide. However, the method does not limit the sample size nor the distillation time, and too large of a sample size could result in incomplete neutralization of the alkalinity, thus reducing the amount of HCN released and a resultant lower analysis of total cyanide. Similarly, too short a distillation time would also result in a lower analysis of total cyanide. To prevent this from happening, EPA is proposing an amendment to 40 CFR 268.43 that would require amenable and total cyanide concentration in wastes to be analyzed by Method 9010 of SW-846 with a sample size and a distillation time ranging from 0.5 to 10 grams and one hour to one hour and fifteen minutes, respectively. By proposing these constraints on sample size and distillation time, the Agency believes that compliance of the BDAT treatment standard will be done by actual treatment. Also, based on information from commercial laboratories, these values represent a range of sample size and distillation time that is commonly used for cyanide analysis.

EPA does not believe that this proposed clarification to the analytical method affects the achievability of the cyanide standards already promulgated.

In fact, the sample size and the distillation time used to develop the treatment standards for F006, F007, F008, and F009 nonwastewaters were 10 grams and one hour and fifteen minutes, respectively (see RCRA Docket LD10-L0032, letter dated May 1, 1989). The Agency subsequently has solicited information from several treaters of cyanide wastes, who indicated to the Agency during the Second Third rulemaking that they were achieving the F006 nonwastewater cyanide standard as to the sample size and distillation time they are using. These facilities stated that they use a sample size of less than 5 grams and a distillation time of 1 hour (see administrative record for cyanide wastes in today's notice), again within the range being proposed today. Therefore, the Agency believes that the data in the Second Third rule documenting achievability of the cyanide treatment standard reflects the analytic procedure being proposed today.

(1) *F006 Wastewaters.* Today's rule proposes wastewater treatment standards for amenable and total cyanides and metal constituents for F006 wastewaters. (Nonwastewater standards for F006 metal constituents were promulgated in the First Third final rule, and nonwastewater standards for F006 cyanides were promulgated in the Second Third final rule.) Wastewater treatment standards are based on the performance of alkaline chlorination for the amenable and total cyanides, and chromium reduction followed by chemical precipitation using lime and sulfides and sludge dewatering for the metals. Detailed information on F006 waste characterization and the technical feasibility of the transfer of the performance of the treatment systems can be found in the Proposed Addendum to the Best Demonstrated Available Technology (BDAT) Background Document for F006.

F006 wastewaters are expected to result primarily from waste treatment operations in the electroplating or metal finishing industries. For example, the filter and/or clarifier overflow from treated electroplating wastewaters may be considered F006 wastewaters. F006 wastewaters may also be generated at a CERCLA site, during corrective action at a RCRA facility, or as a result of spills.

The Agency is proposing amenable and total cyanide standards for F006 wastewaters based on the performance of alkaline chlorination. The Agency is transferring these standards from the F007, F008, and F009 wastewaters. This transfer is based on the similarities in concentrations of cyanides in these



wastewaters and on the fact that F006 wastewaters, like F007, F008, and F009 wastewaters, are generated from electroplating operations. The Agency also believes that the F006 wastewaters contain lower or at most, similar, concentrations of amenable and total cyanides than F007, F008, and F009 wastewaters and are therefore less difficult to treat.

The Agency is proposing four metal standards (cadmium, total chromium, lead, and nickel) for F006 wastewaters based on the transfer of treatment standards for metals in K062. These standards are based on chromium reduction followed by chemical precipitation using lime and sulfide and sludge dewatering. (In fact, the Agency has information that certain facilities currently using these same treatment processes on F006 wastewaters.) The Agency believes that this transfer is technically feasible because the metals in K062 wastewaters are more difficult to treat (due to the high acidity of K062 wastes and the higher overall concentrations of total dissolved salts and metals) than the F006 wastewaters (e.g., individual metal concentrations in K062 ranged up to 7,000 ppm).

During the process of determining today's proposed standards, the Agency also evaluated performance data that were developed by EPA's Office of Water for hydroxide precipitation, sedimentation, and filtration for wastes from the metal finishing industry. However, the Agency did not use these data in the development of today's proposed F006 metal standards because the metal finishing waste characterization data indicated that the untreated concentrations of these metals in these wastewaters were low compared to those in F006 wastewaters. In fact, the individual metal concentrations in F006 wastewaters ranged up to 400 ppm and overall were typically orders of magnitude higher than those in the database for metal finishing raw wastewaters. The Agency believes, therefore, that these treatment data for the metal finishing wastewater streams do not represent treatment of F006 wastewaters and may result in wastewater treatment standards that would be unachievable for the F006 wastewaters. Thus, the Agency is not proposing F006 wastewater treatment standards based on these data.

#### BDAT TREATMENT STANDARDS FOR F006

[Wastewaters]	
Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cyanides (total).....	1.9
Cyanides (amenable).....	0.10
Cadmium.....	1.6
Chromium.....	0.32
Lead.....	0.040
Nickel.....	0.44

(2) F019. Today's rule proposes treatment standards for amenable and total cyanides and metals in F019 wastewaters and nonwastewaters. Treatment standards for the wastewaters are based on the performance of wet air oxidation for the amenable and total cyanides. Treatment standards for metals in wastewaters are based on chromium reduction, chemical precipitation with lime and sulfide, and sludge dewatering. Treatment standards for the nonwastewaters are based on the performance of wet air oxidation for amenable and total cyanides, and stabilization for the metals.

In the Second Third final rule, the Agency stated that F019 wastes are a different treatability group than F006, F007, F008, and F009 electroplating wastes or F010, F011, and F012 heat treating wastes. This difference is primarily due to the presence of high concentrations of iron-cyanide complexes (ferric or ferrous cyanides) in F019 wastes (54 FR 26613, June 23, 1989). The source of the iron-cyanide complexes is the soluble ferrocyanide compounds used in the coating baths and in components of the coating. A detailed technical description of the generation and characterization of F019 wastes and discussion of the applicable technologies can be found in the Background Document for F019 wastes.

For the F019 wastes, the Agency investigated the technologies of ultraviolet (UV) ozonation and wet air oxidation. For the UV ozonation test, the Agency treated a F009 waste that contained primarily complex cyanides at a concentration of 60 to 63 ppm. This waste was then spiked with approximately 1,900 ppm of the ferricyanide, in order to simulate an F019 wastewater. The performance data from the UV ozonation technology indicated that the total cyanide concentration was not substantially reduced, indicating that UV ozonation was not an effective treatment for these wastes.

The Agency also investigated wet air oxidation of F019 wastes. The original F019 wastes collected by the Agency contained a total concentration of cyanide of 5,000 ppm. The waste was then diluted four to one with water in order to fluidize and charge the waste through the wet air oxidation process. Therefore, the theoretical influent concentration of cyanide should have been 1,250 ppm. However, the analysis of the influent concentration of cyanides indicated a concentration of 300 ppm (which was analyzed as mostly amenable cyanides). Because of these apparent discrepancies in the analytical data, the Agency is proposing two options for the development of treatment standards for total and amenable cyanides for F019 wastewaters and nonwastewaters.

The first option proposes concentration-based treatment standards for cyanides based on the performance data for wet air oxidation. Although there apparently are some discrepancies (noted above) with the cyanide analyses for F019, these data do represent treatment of an F019 waste and indicate that significant destruction of cyanides was achieved by the technology. Since wet air oxidation is an applicable technology and has been demonstrated on other cyanide wastes, the Agency believes that these standards based on wet air oxidation can be achieved.

As an alternative, the Agency is also proposing to transfer the concentration-based treatment standards for F006-F009 based on the performance of alkaline chlorination for F006 through F009 wastes. In the Second Third Final Rule (54 FR 26611), the Agency promulgated a treatment standard for total cyanide in F006 through F009 nonwastewaters as 590 mg/kg. While the Agency stated that F019 wastes were different from F006-F009 wastes because the F019 wastes contained high concentrations of iron-cyanide complexes, review of the waste characterization data for F006 wastes indicates that many F006 wastes also contain high concentrations of iron-cyanide complexes that are somewhat similar. Based on this information and the fact that F019 wastes could be diluted to levels similar to those found in the high iron F006 wastes in order to effect treatment, the Agency believes that the alternative proposed treatment standards for F019 based on a transfer from these F006 high iron wastes may be appropriate. The Agency is requesting comments on these two options for developing treatment standards for F019 wastes.



In addition, the Agency is proposing a treatment standard for amenable cyanides in F019 nonwastewaters based on the reproducibility of the analytical method for total cyanides. Details of the calculation of the amendable cyanide standards can be found in the background document. The Agency used a similar procedure for developing treatment standards for amenable cyanides in F006-F012 wastes in the Second Third Final Rule (see 54 FR 26611).

The Agency is proposing treatment standards for total chromium based on a transfer of treatment performance data for K062 wastewaters. These data are from a treatment train that included chromium reduction followed by precipitation with lime or sulfide and dewatering. In addition, generators of F019 wastes have indicated to the Agency that this treatment train is consistent with the onsite treatment of F019 wastewaters that is currently being performed. The Agency believes that this transfer is technically feasible because the metals in K062 wastewaters are more difficult to treat (due to the high acidity of K062 wastes and the higher overall concentrations of total dissolved salts and metals) than the F006 wastewaters (e.g., individual metal concentrations in K062 ranged up to 7000 ppm).

The Agency is also proposing treatment standards for total chromium in F019 nonwastewaters based on a transfer of performance data from the stabilization of F006 wastes. The Agency believes that the transfer of the performance of stabilization data from F006 to F019 is technically feasible due to the higher concentration of metals within F006 wastes.

#### BDAT TREATMENT STANDARDS FOR F019

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cyanides (Total).....	0.27
Cyanides (Amendable).....	0.11
Chromium (Total).....	0.32

#### BDAT TREATMENT STANDARDS FOR F019

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Cyanides (Total).....	390
Cyanides (Amendable).....	20
Chromium (Total).....	5.2

(3) *K011, K013 and K014.* In the Second Third final rule, the Agency promulgated treatment standards for the K011, K013, and K014 nonwastewaters (54 FR 26614, June 23, 1989). Treatment standards for the nonwastewaters were based on the performance of incineration. In addition, the Agency proposed treatment standards for K011, K013, and K014 wastewaters in the Second Third proposed rule on January 11, 1989 (54 FR 1056). Commenters on the proposed wastewater standards indicated that they were in the process of developing wet air oxidation data for these wastewaters. Since the Agency concurred that wet air oxidation was an applicable technology for these wastes and since the other data that was available to the Agency for treatment of these wastewaters was relatively incomplete, the Agency chose not to promulgate the proposed wastewater treatment standards at that time. After the close of the comment period, commenters submitted these performance data for treatment of K011, K013, and K014 wastewaters using wet air oxidation. As a result, the Agency is proposing treatment standards for organics and total cyanides in K011, K013, and K014 wastewaters. Treatment standards are based on the performance of wet air oxidation for the organics and cyanides.

The Agency is defining K011, K013, and K014 wastewaters (as generated) as containing less than 3.5% Total Organic Content (TOC) and less than 1% Total Suspended Solids (TSS). The Agency believes that the 3.5% cutoff level is applicable based on the available waste characterization data for K011, K013, and K014 wastes. As generated all of these wastes are liquid and contain primarily water, yet they sporadically contain over 1% TOC (but not more than 3%) and would have been classified as nonwastewaters based on the Agency's standard cut-off of 1% TOC.

The Agency originally established the 1% TOC cut-off based on evaluation of waste characterization data for solvent-water mixtures. These data indicated that the majority (99%) of the wastewaters containing solvents were significantly lower in total organics. These lower concentrations also corresponded to the appropriate concentrations of feed streams for the technologies applicable to the solvent-water mixtures (i.e., steam stripping, biodegradation, and carbon adsorption). The proposed 3.5% TOC cutoff for K011, K013, and K014 wastewaters is based on similar logic and calculation. In addition, the technology of choice for K011, K013, and K014 liquids with less than 3.5% TOC is wet air oxidation. Since wet air oxidation is typically designed to handle similar or slightly higher TOC levels although 10% TOC is cited in guidance as a typical maximum level for wet air oxidation, but, wet air oxidation systems are usually designed for lower levels, the Agency determined that it is an appropriate technology for these wastes and that the TOC cut-off for K011, K013, and K014 wastewaters should be adjusted accordingly.

#### BDAT TREATMENT STANDARDS FOR K011, K013, K014

##### [Wastewaters <3.5% TOC and <1% TSS]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Acetonitrile.....	38
Acrylamide.....	19
Acrylonitrile.....	0.06
Benzene.....	0.02
Cyanides (total).....	21

#### (4) *U and P Waste Codes Containing Cyanides*

P031—Cyanogen  
P033—Cyanogen chloride  
U246—Cyanogen bromide

Today's rule proposes alkaline chlorination or incineration as a method of treatment for amenable and total cyanides for P031, P033, and U246 Wastes. For these wastes, the Agency is proposing a technology rather than concentration-based standards due to the high toxicity of these wastes and due to the imprecision of the analytical method for these wastes.

In a cyanide oxidation process such as alkaline chlorination, the cyanide present within a waste is converted to carbon dioxide and nitrogen. Before the carbon dioxide and nitrogen are formed, there are two intermediate reactions



that occur. The first reaction is the reaction of cyanide with chlorine to form cyanogen compounds. The second reaction is cyanogen compounds hydrolyzed to cyanate compounds. These cyanate compounds are further oxidized with excess chlorine to carbon dioxide and nitrogen. Based on information from the "Standards Method for the Examination of Wastewater," the cyanogen compounds are highly toxic and have limited solubility. At alkaline pH, these compounds hydrolyze to the cyanate compound and the rate of reaction is pH and time dependent. However, these cyanogen compounds convert rapidly to the cyanate compound when there is excess chlorine.

The Agency believes that because the cyanogen compounds are very unstable, these compounds are destroyed by incineration. Since the Agency has data that indicate that other more stable cyanide wastes can be completely destroyed to the detection limits, the Agency is proposing that incineration is an option for these cyanogen U and P wastes.

#### BDAT TREATMENT STANDARDS FOR P031, P033, U246

[Nonwastewaters and Wastewaters]

Alkaline Chlorination or Incineration as Methods of Treatment

#### b. F024 and F025

(1) *Addition of Standards for F024 Wastes.* Concentration-based treatment standards for organics in F024 wastewater and nonwastewater were promulgated in the Second Third final rule (54 FR 26615, June 23, 1989). The treatment standards were based on the performance of rotary kiln incineration for organic constituents, and chemical precipitation followed by vacuum filtration for metal constituents in wastewaters.

After the close of the comment period, the Agency completed an analysis of TCLP extracts obtained from the stabilization of F024 incinerator ash residues. The results of this analysis showed substantial reduction of metals; however, because these data were not available for public notice and comment and the resultant treatment standards were significantly different from the proposed standards, the Agency decided to reserve treatment standards for metals in F024 nonwastewaters.

Stabilization is an available technology for metals in F024

nonwastewaters because this technology is commercially available and can be purchased from a proprietor, and provides substantial reduction of metal hazardous constituents in the TCLP extract. The stabilization data obtained from the Agency's BDAT treatment test of F024 incinerator ash residues is the only available data on treatment of metal constituents in F024 nonwastewaters. EPA therefore considers stabilization to be BDAT for metals in F024 nonwastewaters.

The specific constituents being proposed by EPA for regulation and the proposed treatment standards are presented in the table at the end of this section. For a detailed description of the reductions exhibited by stabilization of these wastes refer to the Addendum to the BDAT Background Document for F024.

EPA has received anecdotal information that some treatment facilities which previously treated F024 wastes are now refusing to do so because the treatment standard for the waste includes standards for various chlorinated-dibenzo dioxins and furans. EPA has not had the opportunity to pursue whether this is the case, or the extent of the problem, if any. EPA solicits comment on these points here. In addition, the Agency solicits comment on whether the other treatment standards for organics in F024 serve as an adequate surrogate for these chlorinated-dibenzo dioxins and furans (i.e., whether achieving the treatment standards for the other organic constituents in the waste means that the treatment standards for chlorinated-dibenzo dioxins and furans will also be achieved). Based on these comments, the Agency may amend the treatment standard for chlorinated-dibenzo dioxins and furans in F024 wastewaters and nonwastewaters.

(2) *Proposed Standards for F025 Wastes.* Although the listing of F025 as a RCRA hazardous waste has not been promulgated as of today's rule, the Agency believes that promulgation of the listing for F025 will occur prior to the promulgation of the Third Third final rule, and has therefore decided to propose concentration-based treatment standards for F025 wastes at this time. The proposed concentration-based standards for F025, however, may change or become further refined as a result of the final listing of the waste. (EPA would not, however, establish an effective date for a prohibition and treatment standard for this waste before the effective date of the F025 waste listing.)

F025 wastes have been characterized as condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of chlorinated aliphatics. For the purposes of establishing treatment standards, the wastes have been grouped into two subcategories: condensed light ends and filters/aids and desiccants. Available characterization data suggest that different constituents may be contained in each of these subcategories. Therefore, the Agency is proposing concentration-based treatment standards to reflect these differences in physical and chemical composition. Concentration-based treatment standards for all wastewater and nonwastewaters forms of F025 are proposed today based of the transfer of performance data used in the development of treatment standards for specific U and P wastes that are constituents in the various F025 subcategories. (See sections III.A.2.c. and III.A.2.d. for additional information). The Agency believes that the constituents expected to be contained in F025 wastes can be incinerated to below detection limits. Those constituents for which the Agency has not set concentration-based standards can also be incinerated to below detection limits because the Agency believes that these constituents are easier to treat than those constituents for which EPA is proposing concentration-based treatment standards. Further information on the development of treatment standards can be found in the Addendum to the Background Document for F024 Wastes in the RCRA docket.

#### BDAT TREATMENT STANDARDS FOR F024

[Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Chromium (Total).....	0.073
Lead.....	0.021
Nickel.....	0.088

#### BDAT TREATMENT STANDARDS FOR F025

[Nonwastewaters]

Light Ends Subcategory

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Chloroform.....	6.2
1,2-Dichloroethane.....	6.2
1,1-Dichloroethylene.....	6.2



BDAT TREATMENT STANDARDS FOR  
F025—Continued

## [Nonwastewaters]

## Light Ends Subcategory

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Methylene chloride.....	31
Carbon tetrachloride.....	6.2
1,1,2-Trichloroethane.....	6.2
Trichloroethylene.....	5.6
Vinyl chloride.....	0.035

## BDAT TREATMENT STANDARDS FOR F025

## [Wastewaters]

## Light Ends Subcategory

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Chloroform.....	0.035
1,2-Dichloroethane.....	0.007
1,1-Dichloroethylene.....	0.007
Methylene chloride.....	0.037
Carbon tetrachloride.....	0.007
1,1,2-Trichloroethane.....	0.007
Trichloroethylene.....	0.007
Vinyl chloride.....	0.033

## BDAT TREATMENT STANDARDS FOR F025

## [Nonwastewaters]

## Spent Filters/Aids and Desiccants Subcategory

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Chloroform.....	6.2
Methylene chloride.....	31
Carbon tetrachloride.....	6.2
1,1,2-Trichloroethane.....	6.2
Trichloroethylene.....	5.6
Vinyl chloride.....	0.035
Hexachlorobenzene.....	37
Hexachlorobutadiene.....	28
Hexachloroethane.....	30

## BDAT TREATMENT STANDARDS FOR F025

## [Wastewaters]

## Spent Filters/Aids and Desiccants Subcategory

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Chloroform.....	0.035
Methylene chloride.....	0.037
Carbon tetrachloride.....	0.007

BDAT TREATMENT STANDARDS FOR  
F025—Continued

## [Wastewaters]

## Spent Filters/Aids and Desiccants Subcategory

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
1,1,2-Trichloroethane.....	0.007
Trichloroethylene.....	0.007
Vinyl chloride.....	0.033
Hexachlorobenzene.....	0.055
Hexachlorobutadiene.....	0.031
Hexachloroethane.....	0.034

*c. Wastes from Inorganic Pigment Production.* These wastes are generated by facilities manufacturing and processing inorganic pigments, as well as from the treatment of the wastes themselves. Detailed technical descriptions of the specific production processes generating these wastes can be found in the Listing Background Document for these wastes, as well as the BDAT Background Document for Inorganic Pigment Wastes.

(1) *Nonwastewaters.* In the Final Second Third Rule (53 FR 26594; June 23, 1989), EPA promulgated treatment standards of "No Land Disposal Based on No Generation" for K005 and K007 wastes. In today's proposed rule, the Agency is revoking these standards because a source wishing to manufacture these pigments in the future would be forced to apply for a variance from the treatment standard (40 CFR 268.44) in order to do so.

In the First Third final rule, EPA also promulgated a standard of "No Land Disposal Based on No Generation" for K004 and K008. EPA modified this standard to apply only to certain newly generated waste as part of the May 2, 1989 final rule (54 FR 18836). On January 11, 1989 EPA also proposed to modify this designation to "No Land Disposal Based on Recycling". During the comment period for the Second Third proposed rule, EPA received information that the recycling operation under consideration for these wastes may involve a limited captive market for the waste by-product; therefore, not all generators would be able to sell their processed K004 and K008. As a result, EPA revoked the "No Land Disposal Based on No Generation" standard in the Second Third final rule (54 FR 26617).

For K002, K003, and K006 (anhydrous) EPA considered proposing a treatment standard based on total recycling using secondary lead smelting. However, this

process could also produce residues which may be subject to land disposal restrictions. Therefore, the Agency is proposing to transfer the performance of chromium reduction followed by precipitation and filtration from K062 to K002, K003, K004, K005, K006 (anhydrous), and K008. The filter cake that is generated from this treatment train may need further treatment such as stabilization in order to prevent immobilization of toxic metals.

EPA is proposing to transfer the K062 nonwastewaters standards to K002, K003, K004, K005, K006, and K008 nonwastewaters because the wastewaters from which K062 sludge are derived are similar in nature to the inorganic pigment wastewaters (i.e., consisting of inorganic constituents). The concentrations of heavy metals in the untreated wastewaters are also similar. The only difference is that K062 wastewaters contain higher concentrations of nickel and chromium (see the BDAT Background Document for Inorganic Pigments). The Agency, however, is soliciting TCLP data on treated inorganic pigment sludge.

In the case of hydrated K006, one facility is manufacturing this pigment, hydrated chrome oxide green, using a boric acid process. Due to the presence of boron, the sulfide precipitation results for K062 sludges may not be translatable to this waste. Therefore, EPA is proposing to transfer the chromium standard from F006 to hydrated K006. This level is achievable for hydrated K006 nonwastewaters. Data submitted by the manufacturer of hydrated K006 indicates that five different stabilizing agents can reduce the hexavalent chromium to its trivalent stage. The process wastewaters underwent chromium reduction and lime precipitation, then the sludge was stabilized using various mixes of cement, fly ash, gypsum, ground burnt lime, and silicate gel (a combination of fly ash and gypsum was the most successful). All of the five mixes easily met the chromium standard for F006. The Agency is soliciting further TCLP data on treated hydrated K006.

(2) *Wastewaters.* The treatment of pigment sludge can generate wastewaters. These wastewaters are similar to treated and untreated wastewaters from the inorganic pigment manufacturing processes, depending on the type of pigment being processed. EPA is therefore proposing regulations based on the chrome pigment effluent guidelines for discharges from this industrial category regulated under the National Pollutant Discharge Elimination System (NPDES) (40 CFR



415.340). The proposed standards are taken directly from the concentrations as stated in the "Development Document for Effluent Limitations Guidelines, New Source Performance Standards, and Pretreatment Standards for the Inorganic Chemicals Manufacturing Point Source Category", June, 1982. These standards are based on chromium conversion and lime precipitation to remove toxic metals. Because the effluent limitations guidelines and standards contain both 30 day and one day numbers, the RCRA treatment standard likewise requires compliance with 30 day and one day standards. The minimum sampling frequency recommended is once a week. The basis of the 30 day limit is consecutive calendar days and not sampling days. The statistical basis for these one and 30 day values is set forth in the Development document cited above.

#### BDAT TREATMENT STANDARDS FOR K002, K003, K004, K006 (ANHYDROUS), AND K008

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Chromium (Total).....	0.094
Lead.....	0.37

#### BDAT TREATMENT STANDARDS FOR K006 (HYDRATED)

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Chromium (Total).....	5.2

#### BDAT TREATMENT STANDARDS FOR K005 AND K007

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Chromium (Total).....	0.094
Lead.....	0.37

#### 5BDAT TREATMENT STANDARDS FOR K002, K003, K004, K006, AND K008

##### [Wastewaters]

Regulated constituent	Total concentration (in mg/l)	
	30 day maximum	24 hour maximum
Chromium (Total).....	1.2	0.9
Lead.....	1.4	3.4

#### BDAT TREATMENT STANDARDS FOR K005 AND K007

##### [Wastewaters]

Regulated constituent	Total concentration (in mg/l)	
	30 day maximum	24 hour maximum
Chromium (Total).....	1.2	.9
Lead.....	1.4	3.4
Cyanides (Total).....	0.31	0.74

#### d. K015

In the final First Third Rule (53 FR 31154), the Agency promulgated a treatment standard of "No Land Disposal Based on No Ash" for K015 nonwastewaters. Concentration-based standards for K015 wastewaters were promulgated at that time. After promulgation, a facility generating K015 nonwastewaters submitted information indicating that their K015 waste generated an ash residue upon combustion. Therefore, the Agency's assessment of these wastes not having an ash content was incorrect. As a result, EPA is proposing to revoke the "No Land Disposal Based on No Ash" standard for the nonwastewater forms of K015 (as well as the subcategorization based on ash content), and is proposing numerical treatment standards for all K015 nonwastewaters today.

The Agency is proposing treatment standards for five organic and two metal constituents. Treatment standards for the organic constituents are based on a transfer of the performance data of incineration for similar wastes. Treatment standards for metal constituents are based on a transfer of the performance of stabilization of incinerator ash for similar wastes. Six sample sets from the treatment of K019 and five sample sets from the treatment of K087 had been collected for rotary kiln incineration. These data sets were transferred to K015 nonwastewaters based on structural similarities. The

constituent p-Dichlorobenzene is being used as a surrogate for benzal chloride; p-dichlorobenzene treatment data from K019 will be transferred to benzal chloride in K015. These constituents are similar in that they are both chlorinated benzenes.

The proposed toluene standards for K015 are transferred directly from K019 treatment data. Toluene is present at higher levels in untreated K019 waste than in untreated K015 waste. Therefore, treatment by incineration should result in at least as low a level of toluene in K015 nonwastewater as in K019. The proposed standards for benzo(b/k)fluoranthene in K015 are transferred from K087 treatment data. Both the b and k forms are found in K087, whereas only the k form is present in K019. In addition, the untreated benzo(b/k)fluoranthene in K087 should be more difficult to treat than in K019, hence K087 is a better source of transferred incineration data for benzo(b/k)fluoranthene. Proposed standards for anthracene and phenanthrene are transferred from K087 data. These constituents are also found in untreated K019 waste; however, the concentrations of these constituents in K019 are not as high as in untreated K015. Anthracene and phenanthrene are, however, present at higher concentrations in K087 than in K015. Therefore, treatment by incineration should result in at least as low a level of these constituents in K015 as in K087. The Addendum to the Background Document for K015 describes how each standard was developed and presents the K019 and K087 treatability data used to generate these standards.

No performance data are available for treatment of metals in K015 nonwastewaters. However, data are available for stabilization of metals in the incinerator ash of K048-K052. Based on the similarity of the constituents and their concentrations expected to be found in the untreated K015 incineration ash compared to K048-K052 ash, K015 ash appears to be sufficiently similar to the ash generated by incinerating K048-K052. No data exist characterizing metal concentrations in untreated K015 ash; however, nickel and chromium were found in the incinerator scrubber water. Hence, nickel and chromium should be expected in the ash and consequently EPA is proposing to regulate them in K015 nonwastewaters.



## BDAT TREATMENT STANDARDS FOR K015

[Nonwastewaters; Revised from no land disposal]

Regulated constituent	Maximum for any single grab sample	
	Total composition (mg/kg)	TCLP (mg/l)
Anthracene.....	3.4	
Benzal chloride.....	6.2	
Benzo(b/k)fluoranthene.....	3.4	
Phenanthrene.....	3.4	
Toluene.....	6.0	
Chromium (Total).....	1.7	
Nickel.....	0.048	

*e. K022, K025, K026, K035, and K083.*

All of these wastes generally contain similar treatable concentrations of aromatic organics and hydrocarbons. They thus are amenable to similar treatment technologies and present similar technical difficulties in developing treatment standards. Thus, these wastes have been grouped together under the same section for purposes of discussion. K022, K035, and K083 are scheduled First Third wastes, K025 is a Second Third waste, and K026 is a Third Third waste. EPA promulgated nonwastewater treatment standards for K022, K025, and K083 in the First Third final rule (53 FR 31138). EPA later deferred treatment for K083 nonwastewaters containing ash to the Third Third in the May 2, 1989, final rule (53 FR at 18837).

(1) *Development of Treatment Standards.* EPA has data that indicate nonwastewater forms of K025 and K026 are no longer generated in the United States. These wastes are currently subject to a treatment standard expressed as "No Land Disposal Based on No Generation". The Agency is proposing to revoke these standards in order that a source wishing to manufacture commercial products by the manufacturing processes described in the listing document for these wastes will not be forced to apply for a variance from the treatment standard in order to do so.

K025 is generated from the nitration of benzene which is a similar process to that which generates K111, K112, K103, and K104. Each one of these wastes has constituents which are as difficult to treat as those constituents in K025. Available data characterizing the chemical composition of K025 are very limited, therefore the Agency is proposing to transfer performance data from K103 and K104 wastes to K025 in order to establish, as one option, concentration-based treatment standards, and as another option, a treatment standard expressed as a method.

For K035 wastewaters, EPA is proposing standards based on process wastewaters from the distillation of coal-tars as a surrogate waste for developing treatment standards. These process wastewaters are the precursors of K035 wastewater treatment sludges listed as hazardous wastes in 40 CFR § 261.32. These process wastewaters contain the same constituents for regulation as those identified in the K035 nonwastewaters with the exception of o-cresol, p-cresol, and phenol. These three constituents were identified in the process wastewaters at treatable concentrations and EPA is proposing to regulate them.

EPA is proposing concentration based standards for the organics identified in K022, K026, K035, and K083 wastes. These treatment standards are based on the incineration of similar nonwastewaters. As a result, EPA is also proposing incineration of these wastes as a prerequisite for land disposal. The concentration based standards for K026, K035, and K083 nonwastewaters are based on the concentration of organics achieved in the residual ash of the waste tested by EPA. Similarly, treatment standards for the K022, K026, K035, and K083 wastewaters are supported by the concentration organics achieved in the incineration scrubber waters.

For K025, EPA is proposing concentration based treatment standards for organics. The proposed treatment standards for the organics in K025 wastewaters are based on liquid-liquid extraction followed by stream stripping followed by carbon adsorption. As an alternative, the agency believes that the organics in these wastes can be effectively treated and removed by either direct carbon adsorption or wet air oxidation followed by carbon adsorption. The proposed treatment standards for K025 nonwastewaters are based on incineration. Alternatively, EPA is proposing requiring these methods of treatment as a prerequisite for land disposal of K025. Incineration of K025 wastewaters is also proposed as an equivalent method of treatment for K025 wastewaters. EPA prefers establishing methods of treatment for K025 and K026 because the lack of characterization data for them makes our approach uncertain in whether other constituents in the uncharacterized wastes that may be at treatable concentrations will or will not be regulated by the constituents proposed for regulation.

Available characterization for all these wastes show that only K022 and K083 have treatable concentrations of

metals. As a result, EPA is proposing concentration based treatment standards for the metals identified in K022 and K083. The proposed treatment standards for K022 and K083 wastewaters are based on chemical precipitation of a similar waste to K022 and K083 wastewaters. For the metals in K083 nonwastewaters, the proposed treatment standards are based on stabilization. Alternatively, EPA is proposing for K022 and K083 treatment standards expressed as methods of treatment. The methods of treatment would be those BDAT technologies supporting the proposed concentration based standards for these two wastes. To determine the applicability of the proposed treatment standards, the standard BDAT criteria should be used to classify K022, K026, K035, and K083 as wastewaters or nonwastewaters. These standard BDAT criteria classify a waste as a wastewater if it contains less than one percent total suspended solid (TSS) and less than one percent total organic content (TOC). In contrast, K025 wastes are classified as wastewaters if they contain less than one percent TSS and less than 4 percent TOC. These wastes are classified as nonwastewaters if the TSS or TOC percent levels are exceeded. EPA is proposing a different wastewater definition for K025 because, upon study, it appears that normal liquids carrying this waste code that are amenable to wastewater treatment can legitimately contain up to 4% TOC (see BDAT Background Document of K025).

The BDAT Background Documents for these wastes provide further discussion on the constituents proposed for regulation as well as the development of the treatment standards proposed today. The BDAT Background Document for K022 is referred as a Proposed Amendment to the Final BDAT Background Document for K022. The tables at the end of this section summarize the proposed concentration based treatment standards for these wastes as well as the proposed constituents for regulation.

## BDAT TREATMENT STANDARDS FOR K022

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Toluene.....	0.017
Acetophenone.....	0.036
Diphenylamine/diphenylnitrosamine.....	0.036
Phenol.....	0.091
Chromium (Total).....	0.35
Nickel.....	0.47



## BDAT TREATMENT STANDARDS FOR K025

[Wastewaters; &lt;1% TSS and &lt;4% TOC]

Incineration, or liquid-liquid extraction followed by steam stripping followed by carbon adsorption as a method of treatment.

## BDAT TREATMENT STANDARDS FOR K025

[Nonwastewaters]

Incineration as a method of treatment.

## BDAT TREATMENT STANDARDS FOR K025

[Wastewaters; Alternative proposal]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/l)
2,4-Dinitrotoluene .....	0.67
Nitrobenzene .....	0.084
4-Nitrophenol .....	0.67

## BDAT TREATMENT STANDARDS FOR K025

[Nonwastewaters; Alternative proposal]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/kg)
2,4-Dinitrotoluene .....	2.3
Nitrobenzene .....	2.3
4-Nitrophenol .....	2.3

## BDAT TREATMENT STANDARDS FOR K026

[Wastewaters and Nonwastewaters]

Incineration as a method of treatment.

## BDAT TREATMENT STANDARDS FOR K026

[Nonwastewaters; Alternative proposal]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/kg)
Pyridine .....	14

## BDAT TREATMENT STANDARDS FOR K026

[Wastewaters; Alternative proposal]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/l)
Pyridine .....	0.017

## BDAT TREATMENT STANDARDS FOR K035

[Wastewaters]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/l)
Benz(a)anthracene .....	0.028
Chrysene .....	0.14
o-Cresol .....	0.028
p-Cresol .....	0.028
Fluoranthene .....	0.028
Naphthalene .....	0.028
Phenanthrene .....	0.028
Phenol .....	0.031
Pyrene .....	0.056

## BDAT TREATMENT STANDARDS FOR K035

[Nonwastewaters]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/kg)
Acenaphthene .....	3.4
Anthracene .....	3.4
Benz(a)anthracene .....	3.4
Benzo(a)pyrene .....	3.4
Chrysene .....	3.4
Dibenz(a,h)anthracene .....	3.4
Fluoranthene .....	3.4
Fluorene .....	3.4
Indeno(1,2,3-cd)pyrene .....	3.4
Naphthalene .....	3.4
Phenanthrene .....	3.4
Pyrene .....	8.2

## BDAT TREATMENT STANDARDS FOR K083

[Nonwastewaters; Revised from no land disposal]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/l)	TCLP (mg/l)
Benzene .....	6.6	
Aniline .....	14.0	
Diphenylamine/ diphenylnitrosamine .....	14.0	
Nitrobenzene .....	14.0	
Phenol .....	5.6	
Cyclohexanone .....	30.0	
Nickel .....		0.088

## BDAT TREATMENT STANDARDS FOR K083

[Wastewaters]

Regulated constituent	Maximum for any single grab sample: Total composition (mg/l)
Benzene .....	0.008
Aniline .....	0.017
Diphenylamine/ diphenylnitrosamine .....	0.017
Nitrobenzene .....	0.017
Phenol .....	0.007
Cyclohexanone .....	0.036
Nickel .....	0.47

## f. K036 and K037

Today's rule proposes revised treatment standards for the wastewater forms of K037 and the nonwastewater forms of K036. Detailed technical descriptions of the specific production processes generating these wastes can be found in the background document for the listing of these wastes. These compounds were included in the organophosphorus pesticides treatability group in the Second Third proposed rule (54 FR 1085).

The Agency promulgated a treatment standard of "No Land Disposal Based on No Generation" for K036

nonwastewaters in the First Third final rule on August 8, 1988 (53 FR 31174, August 17, 1988). EPA amended this standard on May 2, 1989, to apply to wastes generated from the process described in the listing description and disposed after August 17, 1988 (54 FR 18836). In today's rule the Agency is proposing to transfer a concentration based standard from K037 nonwastewaters to other forms of K036 nonwastewaters, such as K036 spill residues, and is proposing to revise the K037 wastewater standards. (The Agency promulgated concentration-based treatment standards for K037 wastewaters and nonwastewaters in the First Third final rule.)

(1) *Development of Standards.* In the January 11, 1989, proposed rule for Second Third wastes (54 FR 1056), the Agency proposed a direct transfer of the concentration-based standards from the incineration of K037 wastes (wastewater treatment sludge from the production of Disulfoton) to a number of organophosphorus pesticide wastes. The basis for transferring the K037 standards is the similarity in structure and elemental composition of Disulfoton, the principal hazardous constituent of concern in K037 wastes, to all of the organophosphorus pesticides. In addition, the Agency believes that Disulfoton is one of the most difficult chemicals in that group of organophosphorus pesticides to incinerate. Given that Disulfoton can be effectively treated by incineration, the Agency believes that all the other wastes in the organophosphorus pesticides treatability group can be effectively treated by incineration, and the concentration-based standard for each representative regulated organophosphorus pesticide can be identical to that achieved by incineration of Disulfoton in K037 wastes. Therefore, the Agency believes that the performance achievable by incineration represents BDAT for



nonwastewater forms of K036 and is proposing concentration-based standards based on a transfer from the incineration of K037 nonwastewaters.

In the Second Third final rule, the Agency promulgated concentration-based treatment standards for the wastewater forms of the organophosphorus pesticides. These standards were proposed based on the concentrations found in scrubber water from a K037 incineration test burn. The Agency received data during the comment period on biological treatment of wastewaters containing Parathion, a constituent similar to Disulfoton, that were used as the basis of the promulgated treatment standards. Today the Agency is proposing to revise the wastewater treatment standards for K037 to be consistent with the other wastewater standards for organophosphorus pesticides.

(2) *Identification of BDAT and Regulated Constituents.* Standards applicable to K036 nonwastewaters are based on the performance achieved by rotary kiln incineration and the concentration of organophosphorus pesticide measured in the ash residuals. Standards applicable to K037 wastewaters are based on the performance achieved by biological treatment and the concentration of the regulated constituent (Disulfoton or Toluene) measured in the resultant effluent wastewaters. Where the treatment standards are expressed as concentration-based standards, other treatment technologies that can achieve these concentration-based treatment standards are not precluded from use by this rule. The regulated constituents and treatment standards for these wastes are listed in the tables at the end of this section.

The Agency points out that the promulgated concentration-based treatment standards for K037 wastewaters are based on the analysis of composite samples rather than grab samples. These performance data used to develop the standard for Disulfoton were received during the comment period for the Second Third Proposed Rule, and were based on the analysis of composite effluent samples. The data used to develop the standard for Toluene is from the Office of Water's Industrial Technology Division Database. See further discussion of composite samples in section III.A.1.f. of today's preamble. These data are a preferable measure of treatment performance because where the Agency has performance data that conform with BDAT methodology on wastewater treatment processes as well as data on

incineration as measured by constituent concentrations in scrubber water, the Agency prefers to establish treatment standards based on the wastewater treatment processes. (Note: This does not preclude the Agency from establishing treatment standards for other wastes based on constituent concentrations in incinerator scrubber waters.)

Today's rule proposes revised concentration-based standards for the wastewater forms of K037 and the nonwastewater forms of K036.

#### BDAT TREATMENT STANDARDS FOR K036

[Nonwastewaters]

[Revised From No Land Disposal]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Disulfoton.....	0.1

#### BDAT TREATMENT STANDARDS FOR K037

[Wastewaters]

[Revised Based on Biotreatment Data]

Regulated constituent	Maximum for any single composite sample, total composition (mg/l)
Disulfoton.....	0.025
Toluene.....	0.080

g. *K044, K045, K046, K047—(1) K044, K045, K047.* Today's rule proposes to revoke the "No Land Disposal Based on Reactivity" treatment standard for K044, K045, and K046 wastes and proposes to set a method of treatment rather than concentration-based standards for these wastes. In the May 2, 1989, final rule (54 FR 18836), the Agency indicated that it would not amend the standard for these wastes because the wastes are listed for exhibiting the characteristic of reactivity. Although this is true, the Agency believes that by revoking the standard and setting "Deactivation as a Method of Treatment", a generator or treater can continue to dispose of this waste after the removal of the characteristic hazard.

(2) *K046.* In the August 17, 1989, final rule (53 FR 31158), the Agency developed two subcategories for the K046 nonwastewaters identified as the Reactive and Nonreactive Subcategories. The Agency based this

subcategorization on the comments received by industry indicating that K046 Reactive wastes were not similar to the K046 Nonreactive wastes due to their reactivity. The nonreactive K046 wastes could be directly stabilized; however, stabilization of the reactive K046 wastes would result in a residual that could remain reactive. The Agency agreed and promulgated a treatment standard for lead in K046 Nonreactive nonwastewaters, but did not promulgate a standards for the K046 Reactive nonwastewaters nor did it promulgate wastewater standards for any K046 wastewaters. The Agency indicated in the First Third Rule that it would examine the data from testing of Nonreactive K046 nonwastewaters, and would determine whether these data could be extrapolated to Reactive K046 wastes or whether new data had to be obtained to set treatment standards for open detonation, open burning, or specialized incineration.

In this rule, the Agency is proposing a nonwastewater treatment standard for lead in the K046 Reactive Subcategory. BDAT for this waste is based on information that indicates that the K046 nonreactive waste for which the treatment standard was promulgated, originally started out as reactive wastewaters. The Agency believes that by removing the reactivity of these wastewaters, the resultant nonwastewater K046 will not be reactive and thus will be similar to the K046 nonreactive wastes for which the Agency promulgated standards (see 54 FR 26607-608 (June 23, 1989) regarding waste treatment that may occur before the listed waste is generated). In addition, the Agency believes that if the K046 nonwastewaters are generated as reactive, they could also be slurried in water and then treated by the same controlled chemical oxidation processes, again resulting in a nonreactive K046 nonwastewater. Thus, the nonwastewater standard for K046 reactive wastes is based on data transferred from the performance of stabilization of the K046 nonreactive wastes. BDAT is based on the performance of deactivation for the reactive wastewaters followed by alkaline precipitation, settling, and filtration to form a nonreactive K046 nonwastewater that is then stabilized for lead.

For all of the K046 wastewaters, BDAT is based on the performance of alkaline precipitation, settling, and filtration. The Agency is transferring the performance of this treatment system



from K062 wastes. The Agency believes that the K062 wastewaters are just as difficult to treat based on the concentration of lead in K062 (up to 212 ppm) which is the same or higher than that which has been found in K046 wastewaters (up to 200 ppm).

#### BDAT TREATMENT FOR K044, K045, K047

[Nonwastewaters and Wastewaters]

[Revised From No Land Disposal]

Deactivation as a method of treatment

#### BDAT TREATMENT STANDARDS FOR K044, K045, K046 AND K047 SUBCATEGORIES

[Wastewaters]

Regulated constituent	Maximum for any single composite sample, total composition (mg/l)
Lead .....	0.037

#### BDAT TREATMENT STANDARDS FOR K046 REACTIVE SUBCATEGORY

[Nonwastewaters]

Regulated constituent	Maximum for any single composite sample, TCLP (mg/l)
Lead .....	0.18

*h. K060.* In the August 17, 1989 final rule (53 FR 31174), the Agency promulgated "No Land Disposal Based on No Generation" for K060 nonwastewaters. EPA amended this standard in the May 2, 1989 final rule to apply only to certain newly generated wastes (54 FR 18838). Today, the Agency is proposing to revoke this standard since a facility might legitimately use ammonia as a reagent in the coking process and therefore may generate this waste. For more detailed technical information about waste characterization and treatment technologies refer to the Best Demonstrated Available Technology (BDAT) Background Document for K060.

*(1) Wastewaters.* Today, the Agency is proposing wastewater standards based on the performance of biological treatment followed by settling and clarification. These treatment standards are transferred from the Office of Water Development Document for Effluent Limitations Guidelines and Standards

for the Iron and Steel Industry Manufacturing Point Source Category Coke Making Subcategory.

The Agency evaluated two types of treatment processes: dephenolization followed by alkaline chlorination and biological treatment followed by settling and clarification. Both data sets were available from the Office of Water Development Document for Effluent Guidelines and Standards for the Iron and Steel Industry Manufacturing Point Source Category Coke Making Manufacture. The Agency believes that the performance data from biological treatment followed by settling and clarification were best because the untreated values were higher and the treated values were lower. Therefore, this treatment system treated a more difficult waste and therefore the system's performance should be transferrable to K060.

For the cyanide constituents in the wastewaters, the treatment standards are based on the performance of alkaline chlorination for F006 through F009 wastes. The Agency believes that this is technically feasible due to the fact that the F006 through F009 wastes are more difficult to treat because of the higher cyanide concentrations (i.e., 30,000 ppm) and presence of non-cyanide complexes.

*(2) Nonwastewaters.* In today's rule, the Agency is proposing nonwastewater treatment standards for organic and cyanides based on a transfer of the performance of incineration for K087. K087 wastes are generated from the same industry (coking industry) as K060 wastes and have similar or higher concentrations of K060. Therefore, the Agency believes that this technology transfer is feasible.

#### BDAT TREATMENT STANDARDS FOR K060

[Wastewaters]

Regulated constituent	Maximum for any 24 hour composite sample, total composition (mg/l)
Benzene .....	0.17
Benzo(a) pyrene .....	0.035
Naphthalene .....	0.028
Phenol .....	0.042
Maximum for any single grab sample, total composition (mg/l)	
Cyanides (Total) .....	1.9

#### BDAT TREATMENT STANDARDS FOR K060

[Nonwastewaters]

[Revised From No Land Disposal]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzene .....	0.071
Benzo(a) pyrene .....	3.6
Naphthalene .....	3.4
Phenol .....	3.4
Cyanides (Total) .....	1.2

*i. K061.* In the August 17, 1988 final rule (53 FR 31162), the Agency promulgated treatment standards for K061 nonwastewaters but did not promulgate treatment standards for K061 wastewaters. K061 wastewaters can be generated from dewatered sludges, CERCLA sites, and during corrective action at RCRA facilities. Based on single source leachate information from the Generator's Survey, K061 wastewaters generally have low concentrations of dissolved metals (i.e., less than 100 ppm). Because of these low concentrations of dissolved metals, the Agency believes that a transfer of the performance of hexavalent chromium followed by precipitation with lime or sulfide and sludge dewatering for K062 wastewaters is technically feasible. In addition, the Agency believes that the K062 wastewaters are more difficult to treat than the K061 wastewaters because of the high concentration of dissolved metals, i.e. 5,000 ppm of dissolved metals.

EPA promulgated treatment standards for nonwastewater forms of K061 as part of the First Third final regulation. In this rule, two subcategories for nonwastewaters forms of K061 were defined. The low zinc subcategory (less than 15%) and the high zinc subcategory (greater than 15%) were defined as separate treatability groups. BDAT for the low zinc subcategory was based on the performance of stabilization. For the high zinc subcategory, the final standard was "No Land Disposal Based on High Temperature Metals Recovery as a Method of Treatment" technology (53 FR 31221). The standard takes effect in August, 1990 and due to a shortage of treatment capacity, an interim numerical standard based on performance of stabilization technology is in force until that time.

Today, EPA is proposing to revise the promulgated treatment standard for the high zinc subcategory to be "Resmelting in a High Temperature Zinc Metal



Recovery Furnace." Specifying this treatment method more accurately reflects the Agency's intentions in promulgating the first third regulation, and does not reflect a change in regulatory approach.

EPA also notes that in establishing resmelting technology as a treatment method, residues from the process may be land disposed without further treatment. (54 FR 26631-32, June 23, 1989) (Where EPA specifies a method of treatment under section 3004(m), residues from that treatment process may be land disposed without further treatment.) That result is appropriate here. Data gathered as part of the First Third rulemaking (and part of this rulemaking record) indicate that the slag that results from high temperature metals recovery has metals mobility levels comparable to (and in some cases, lower than) that achieved by stabilization technologies. To the extent that stabilization may perform somewhat better, EPA still views high temperature metals recovery as superior because it furthers the statutory objectives of recycling and waste minimization while still achieving significant reductions of metal mobility. (See H. Rep. No. 198, 98th Cong, 1st Sess. 31 describing a preferred hierarchy of management options, and ranking recycling and materials recovery as preferable options to conventional treatment.) Since stabilization potentially adds to the volume of waste requiring land disposal (through addition of cementitious binding agents), and does not perform significantly better in reducing metals mobility, EPA does not believe that it constitutes the ultimate best available technology for K061.

To assure that the metals recovery process performs efficiently, however, EPA is also reiterating that any residues must not exhibit any of the characteristics of hazardous waste (see also the general discussion of this issue in preamble section III.C). If they do, they would have to meet the treatment standard for that characteristic. None of the residues from recovery of K061 in EPA's existing data base exhibit any hazardous waste characteristic.

EPA is further soliciting comment regarding the advisability of extending the duration of the existing, interim treatment standard (based on performance of stabilization technology) for another year. EPA is doing so because available information suggests that there is insufficient high temperature metals recovery capacity to

handle demand for this waste. If this were the sole treatment standard, generators could apply for and potentially receive case-by-case variances and the waste would not be required to be treated before being land disposed. EPA is also concerned about the administrative costs and burdens of applying for a case-by-case variance, and the difficulties faced by waste generators while variance petitions are being evaluated.

On the other hand, the Agency does not wish to create a disincentive to construction of new metal recovery capacity. Nor does the Agency wish to reward companies that have not prepared for meeting a treatment standard based on high temperature metals recovery. Accordingly, EPA seeks information about efforts made to construct and operate this type of technology, and what arrangements are being made to enter into binding contractual arrangements to utilize this technology (cf. RCRA Section 3004(h)(3) where this is part of the test for granting a case-by-case variance). Based upon this information (and other relevant information that may develop), the Agency will determine whether to extend the existing standard as an alternative to high temperature metals recovery.

#### BDAT TREATMENT STANDARDS FOR K061

[Nonwastewaters—High Zinc Subcategory]

[Revised from No Land Disposal]

Resmelting in high temperature zinc metal recovery furnace as a method of treatment.

#### BDAT TREATMENT STANDARDS FOR K061

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cadmium.....	1.61
Chromium.....	0.32
Lead.....	0.04
Nickel.....	0.44

j. K069. In today's rule, the Agency is proposing treatment standards for K069 nonwastewaters in the Calcium Sulfate Subcategory, and for wastewater forms of K069. In addition, the Agency is proposing to revoke the no land disposal based on recycling treatment standard

for the Non Calcium Sulfate Subcategory for K069 nonwastewaters and is proposing "Recycling as a Method of Treatment".

(1) Wastewaters. BDAT treatment standards for K069 wastewaters are based on the performance of precipitation with lime and sulfide and sludge dewatering for K062 wastes.

Waste characterization data available to the Agency indicate that K069 wastewaters contain cadmium and lead. The concentration of cadmium is less than 2 ppm and the concentration of lead ranges up to 80 ppm. The Agency believes that this transfer is technically feasible due to the higher concentration of dissolved metals that are present in K062 wastes. Therefore, the Agency believes that the K062 waste is a more difficult waste to treat and thus the performance of the treatment system can be legitimately transferred.

(2) Nonwastewaters. BDAT for K069 nonwastewaters in the Calcium Sulfate Subcategory is stabilization. The Agency believes that there is only one generator of this waste and that this waste cannot be directly recycled to recover lead. The waste characterization data from the one generator indicate that this waste contains metal constituents such as cadmium and lead. The metal concentrations range up to 3300 ppm.

For the K069 nonwastewaters in the Calcium Sulfate Subcategory, the Agency is proposing to transfer the treatment performance of stabilization for K061 waste to the K069 nonwastewaters. The Agency believes that this is a technically feasible transfer because the K061 waste is a more difficult waste to treat. In fact, the metal concentrations in K061 waste ranges up to 20,300 ppm. Therefore, the Agency believes that K069 nonwastewaters can be treated to similar concentration levels as K061, thus the performance of the treatment system can be legitimately transferred.

#### BDAT TREATMENT STANDARDS FOR K069

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cadmium.....	1.61
Lead.....	0.04



**BDAT TREATMENT STANDARDS FOR K069  
CALCIUM SULFATE SUBCATEGORY**

[Nonwastewaters]

Regulated constituent	Maximum for any single Grab sample TCLP (mg/l)
Cadmium.....	0.14
Lead.....	0.24

**BDAT TREATMENT STANDARDS FOR K069  
ON CALCIUM SUBCATEGORY**

[Nonwastewaters]

[Revised from No Land Disposal]

Recycling as a method of treatment

*k. Revisions to K086.* Revisions are being proposed today for the K086 solvent washes treatment standards that were promulgated in the First Third final rule (53 FR 31168, August 17, 1988). Treatment standards for the other K086 treatability groups that have been subject to the "soft hammer" provisions of 40 CFR 268.8, are also being proposed. For a description of K086 wastes, see 40 CFR 268.33 and the K086 Listing Background Document.

Since promulgation of the First Third rule, EPA has collected samples of K086 caustic sludges and water sludges for the purposes of waste characterization and determination of BDAT. Based on the treatment of these samples, EPA believes that it is unnecessary to subcategorize this waste code (beyond subcategorization for wastewaters and non-wastewaters).

The majority of the facilities generating K086 claim they are phasing out or no longer formulating inks derived from chromium and lead based materials. Current management practices include solvent recoveries (from solvent washes and sludges), incineration (corrosive K086 wastes), and fuel substitution (solvent and metal-containing wastes). These technologies are demonstrated and applicable to K086.

Treatment data for wastes believed similar to K086 show that all K086 wastes—solvent, caustic, and water washes, and their sludges—can be treated by incineration. These treatment data also show that a wide range of technologies are available to recover valuable constituents or energy from K086 wastes. (These recovery technologies, however, frequently result in residues that require further treatment prior to land disposal.) Based on these data, EPA is proposing treatment

standards for organics in K086 wastewaters and nonwastewaters based on incineration. For the metal constituents, the Agency is proposing treatment standards based on the performance of hexavalent chromium reduction to trivalent chromium followed by excess lime precipitation, filtration. Except for methanol, the development of the treatment standards for the organics in K086 wastes is consistent with the corresponding U and P treatment standards. Both the BDAT Background Document for K086-Solvent Washes and its November 1989, Addendum further discusses the treatment data supporting the proposed treatment standards for the organic and inorganic constituents in K086 wastes.

The Agency is proposing to expand the list of regulated constituents in K086 to include acetophenone, di-n-butylphthalate, and cyanide. Bis (2-ethylhexyl) phthalate is currently subject to regulation in the current K086 solvent wash treatability group. New characterization data indicate that K086 also contains treatable concentrations of di-n-butylphthalate; therefore, the Agency is proposing to add this constituent for regulation. In addition, the Agency is proposing to include other phthalates identified in the BDAT list in order to prevent the regulated community from simply switching to other phthalates for the purpose of avoiding regulation.

**BDAT TREATMENT STANDARDS FOR K086**

[Nonwastewaters]

Constituent	Maximum for any single grab sample, total composition (mg/kg)
Acetone.....	0.14
Acetophenone.....	9.6
Bis(2-ethylhexyl)phthalate.....	28
n-Butyl alcohol.....	2.6
Butylbenzylphthalate.....	28
Cyanide (total).....	1.5
Cyclohexanone.....	1.9
1,2-Dichlorobenzene.....	6.2
Diethyl phthalate.....	28
Dimethyl phthalate.....	28
Di-n-butyl phthalate.....	28
Di-n-octyl phthalate.....	28
Ethyl acetate.....	5.6
Ethylbenzene.....	33
Methanol.....	140
Methyl isobutyl ketone.....	33
Methyl ethyl ketone.....	200
Methylene chloride.....	31
Napthalene.....	5.9
Nitrobenzene.....	14
Toluene.....	28
1,1,1-Trichloroethane.....	6.2
Trichloroethylene.....	5.6
Xylenes (Total).....	33

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Chromium.....	0.094
Lead.....	0.37

**BDAT Treatment Standards for K086**

[Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Acetone.....	0.25
Acetophenone.....	0.17
Bis(2-ethylhexyl)phthalate.....	0.54
n-Butyl alcohol.....	0.56
Butylbenzylphthalate.....	0.54
Cyclohexanone.....	1.4
1,2-Dichlorobenzene.....	0.058
Diethyl phthalate.....	0.54
Diethyl phthalate.....	0.54
Di-n-butyl phthalate.....	0.54
Di-n-octyl phthalate.....	0.54
Ethyl acetate.....	0.0052
Ethylbenzene.....	0.032
Methanol.....	0.033
Methyl isobutyl ketone.....	0.028
Methyl ethyl ketone.....	0.14
Methylene chloride.....	0.037
Napthalene.....	0.007
Nitrobenzene.....	0.033
Toluene.....	0.032
1,1,1-Trichloroethane.....	0.007
Trichloroethylene.....	0.007
Xylenes (Total).....	0.028
Cyanides (Total).....	1.9
Chromium (Total).....	0.32
Lead.....	0.037

<sup>1</sup> Standard for methanol is based on analysis of a composite sample using SW-846 Method 8000.

1. K100. Treatment standards for K100 wastes were originally scheduled to be promulgated as part of the Third Third rulemaking. However, a treatment standard of "No Land Disposal Based on No Generation" for K100

nonwastewaters was promulgated on August 8, 1988 and subsequently revised on May 2, 1989 (54 FR 18836) to be applicable only to "Nonwastewater forms of these wastes generated by the process described in the listing description and disposed after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes [Based on No Generation]."

In the proposal for the Second Third Wastes (54 FR 1056 [January 11, 1989]), EPA stated its intention to develop concentration-based treatment standards for all forms of K100 prior to May 8, 1990, and has decided to propose to revoke the promulgated treatment standard of "No Land Disposal Based on No Generation" for K100 nonwastewaters. EPA prefers to set concentration-based treatment



standards in lieu of this standard and is today proposing these for K100 nonwastewaters.

Concentration-based treatment standards for all wastewater forms of K100 are proposed today based on the transfer of performance data for metals precipitation from K062 wastewaters and data for metals stabilization from f006 nonwastewaters.

The Agency reminds commenters that there are very few (if any) of these wastes that are currently being generated as originally listed and that the standards will probably only be applied to residues from previous disposal that should be less difficult to treat than the original waste as generated.

#### BDAT TREATMENT STANDARDS FOR K100

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cadmium.....	1.61
Chromium.....	0.32
Lead.....	0.040

#### BDAT TREATMENT STANDARDS FOR K100

##### [Nonwastewaters]

##### (REVISE FROM NO LAND DISPOSAL)

Regulated constituent	Maximum for any single grab sample, TCLP (mg/l)
Cadmium.....	0.066
Chromium.....	5.2
Lead.....	0.51

#### *m. Gases*

- P076—Nitric oxide  
P078—Nitrogen dioxide  
U115—Ethylene oxide

While all three of these U and P wastes are highly toxic, it is unlikely that they will exist as wastes which require land disposal. The wastes listed below are typically found as gaseous materials when existing at high concentrations. Since it is difficult to "spill" a gas on soil or in water, it is unlikely that these wastes could exist as spill residues. While these compounds may exist as aqueous or organic solutions, the solutions may not be considered the listed product. The original listing specifically excluded chemical products that simply contained U or P constituents. However, EPA is concerned about the possibility that full containers of these wastes may have to be disposed of in a cleanup situation.

EPA solicits comments from anyone who feels they may be land disposing these wastes or may have to do so in the future.

Since all three of these wastes are probably generated as gases and since industry typically reuses or recovers compressed gases directly, the Agency is proposing a treatment standard of "Recovery as a Method of Treatment" for all P076, P078, and U115 wastes. Besides, the Agency currently has no specific data on the treatment of P076 or P078, nor can it determine a treatment technology that would be applicable. Thus, the Agency solicits comment on these issues for these wastes and also whether there is even a need to promulgate treatment standards for these wastes.

Concentration-based standards for these wastes would be complicated by the fact that these compounds are gases. While some analytical techniques do exist, the fact that they are gases complicates the analysis of treatment residuals. (The sampling and analysis procedures for these constituents would have to minimize potential losses.)

However, the Agency has recently received data from a facility that had generated a U115 wastewater and nonwastewater. Under the soft hammer provisions, the facility had to demonstrate treatment for these wastes prior to land disposal. The wastes contained up to 26.5 ppm of ethylene oxide. Treatment included incineration of the nonwastewaters and chemical oxidation of the wastewaters. In all cases, the ethylene oxide was reduced to detection limits. These data were received too late for the Agency to develop concentration-based treatment standards for U115 wastes. However, these data are being placed in the administrative record for today's notice and treatment standards for U115 wastes may be promulgated based on these data.

#### BDAT TREATMENT STANDARDS FOR P076, P078, AND U115

##### Recovery as a method of treatment

*n. Revision of Petroleum Refining Wastes.* On August 8, 1988, EPA promulgated treatment standards for regulated constituents in K048-K052 wastewaters and nonwastewaters. The promulgated BDAT treatment standards were based on data that were collected by EPA on incineration of these wastes, data that were submitted to the Agency on solvent extraction of the wastes, and

data for treatment of metals in the wastewater and nonwastewater residuals. However, some of the solvent extraction data were not submitted to the Agency in time to allow them to be fully evaluated before the promulgation date. As a result, EPA reserved the treatment standards for several organic constituents in K048-K052 nonwastewaters. Since promulgation of K048-K052 treatment standards, the Agency has received additional data on treatment of these wastes. The Agency has also recently collected data on solvent extraction of these wastes.

Where EPA has set a treatment standard, it is not precluded from revising that standard after the statutory date provided that rulemaking procedures are followed. RCRA Section 3004(m)(1) states specifically that treatment standards are to be revised as appropriate. EPA believes that revision of these standards is appropriate and timely. Therefore, the EPA is today proposing revised BDAT treatment standards based on a re-evaluation of the currently available data and is proposing that these revised standards, with five exceptions, take effect exactly one year following the Third Third Rulemaking promulgation date to allow the petroleum refining industry sufficient time to adjust to changes from the K048-K052 BDAT treatment standards previously promulgated. The five exceptions are benzo(a) pyrene, ortho- and para-cresols, di-n-butyl phthalate, and phenol. These standards would increase based on the revised data, and therefore, are proposed to be effective on August 8, 1990. Until the revised standards take effect for all other constituents, the previously promulgated standards which, due to the 2 year capacity variance issued for K048-K052 wastes as part of the First Third rule, become effective on August 8, 1990, will remain in effect. Specific changes to the BDAT treatment standards that are being proposed today are discussed below.

The Agency is today proposing to add cyanide as a regulated constituent for K048-K052 wastewaters and is proposing a BDAT treatment standard for cyanide based on incineration of these wastes. At the time of proposal for the First Third wastes, the Agency did not have data on treatment of cyanide for K048-K052 wastewaters and did not have data on treatment of cyanide in other wastes that could be transferred to K048-K052 wastewaters. Data on cyanide in combustion gas scrubber water from incineration of K048 became available to the Agency late in the regulatory schedule for the First Third



wastes. These data have now been used to develop the proposed Third Third treatment standards for cyanide in K048-K052 wastewaters. Thus, for K048-K052 wastes containing cyanide, the Agency expects treatment to occur using incineration technologies. Solvent extraction, although considered a BDAT technology for all other organic constituents regulated in K048-K052 nonwastewaters, has not been demonstrated to treat cyanide. The proposed treatment standard for cyanide in K048-K052 wastewaters is shown in the table at the end of this section.

After the close of the comment period for the proposed regulations for First Third wastes, EPA received additional data on solvent extraction treatment of K048-K052 wastes. These data were received too late to allow a full evaluation and inclusion in the development of the promulgated BDAT treatment standards. Since promulgation of the land disposal restrictions for First Third wastes in August 1988, the Agency has reviewed these data as well as additional new data submitted following promulgation. The Agency has also recently completed a solvent extraction treatment test on a mixture of K048 and K051 waste. For most of the regulated organic constituents in K048-K052 nonwastewaters, the new solvent extraction data show better or similar treatment than the data used to develop the previously promulgated standards. Overall, the Agency believes that the new data provide the most substantial treatment for the greatest number of organic constituents of concern than all of the other solvent extraction data available to the Agency. Therefore, the Agency is proposing revised treatment standards for the organics already covered in the K048-K052 nonwastewater treatment standards based on the results of this treatment test. The Agency has not reevaluated the selection of solvent extraction and incineration as BDAT for organics in nonwastewaters but has instead incorporated the additional solvent extraction performance data into the revision of these treatment standards. As before, these wastes may be treated by any treatment technology capable of achieving the treatment standard.

The Agency also is proposing nonwastewater treatment standards for two constituents for which it reserved treatment standards in the First Third rule, naphthalene and xylene. The results from the recently completed Agency-sponsored solvent extraction test provide treatment performance data for solvent extraction of these

constituents as well (as the other regulated organic constituents in K048-K052 nonwastewaters). There are important environmental reasons to develop treatment standards for xylene and naphthalene in these wastes. These solvents have been found to be present at high concentrations in these wastes (0.1 percent or higher), and at these levels can readily mobilize other land disposed constituents or degrade landfill liners resulting in increased mobilization. The Agency also is concerned about the potential contribution of these constituents to VOC emissions from land disposal facilities. Thus, treatment of these constituents will clearly serve to reduce the mobility of land disposed K048-K052 wastes (and any wastes with which they are co-disposed) (see Section 3004(m)(1)).

EPA has recently received treatment performance data, and a separate rulemaking petition, from Exxon Company, U.S.A. and the American Petroleum Institute (API). The thrust of the petition is that certain of the promulgated treatment standards are unachievable. These data were not received by the Agency in time to be fully evaluated for this proposed rulemaking. The data are mentioned here and included in the administrative record for this proposed rulemaking to provide sufficient notice to commenters of their availability. These data will be fully evaluated by the Agency and may be used by the Agency to provide further revisions to the K048-K052 BDAT treatment standards, if appropriate, in the Third Third final rule.

The revised BDAT treatment standards that are being proposed for organic constituents in K048-K052 nonwastewaters and for cyanide in K048-K052 wastewaters are listed in the tables at the end of this section. The Agency is not proposing revisions to promulgated BDAT treatment standards for constituents in K048-K052 wastewaters other than cyanide, nor for any metal constituents in either K048-K052 wastewaters or nonwastewaters.

#### BDAT TREATMENT STANDARDS FOR K048, K049, K050, K051 AND K052

##### [Wastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/l)
Cyanides (Total).....	0.028

#### REVISED BDAT TREATMENT STANDARDS FOR ORGANICS IN K048

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzene.....	3.9
Benzo(a)pyrene.....	1.4
Bis(2-ethylhexyl)phthalate.....	4.3
Chrysene.....	0.84
Di-n-butyl phthalate.....	4.3
Ethylbenzene.....	0.08
Naphthalene.....	0.84
Phenanthrene.....	0.84
Phenol.....	4.3
Pyrene.....	1.1
Toluene.....	3.9
Xylenes (Total).....	8.5

#### REVISED BDAT TREATMENT STANDARDS FOR ORGANICS IN K049

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Anthracene.....	1.4
Benzene.....	3.9
Benzo(a)pyrene.....	1.4
Bis(2-ethylhexyl)phthalate.....	4.3
Chrysene.....	0.84
Ethylbenzene.....	0.08
Naphthalene.....	0.84
Phenanthrene.....	0.84
Phenol.....	4.3
Pyrene.....	1.1
Toluene.....	3.9
Xylenes (Total).....	8.5

#### REVISED BDAT TREATMENT STANDARDS FOR ORGANICS IN K050

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzo(a)pyrene.....	1.4
Phenol.....	4.3

#### REVISED BDAT TREATMENT STANDARDS FOR ORGANICS IN K051

##### [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Anthracene.....	1.4
Benzene.....	3.9
Benzo(a)anthracene.....	1.4



REVISED BDAT TREATMENT STANDARDS  
FOR ORGANICS IN K051—Continued

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzo(a)pyrene.....	1.4
Bis(2-ethylhexyl)phthalate.....	4.3
Chrysene.....	0.84
Di-n-butyl phthalate.....	4.3
Ethylbenzene.....	0.08
Naphthalene.....	0.84
Phenanthrene.....	0.84
Phenol.....	4.3
Pyrene.....	1.1
Toluene.....	3.9
Xylenes (Total).....	8.5

REVISED BDAT TREATMENT STANDARDS  
FOR ORGANICS IN K052

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzene.....	3.9
Benzo(a)pyrene.....	1.4
o-Cresol.....	6.8
p-Cresol.....	6.8
Ethylbenzene.....	0.08
Naphthalene.....	0.84
Phenanthrene.....	0.84
Phenol.....	4.3
Toluene.....	3.9
Xylenes (Total).....	8.5

*o. Additional Treatment Standards for F002 and F005.* The Agency promulgated treatment standards for F001-F005 listed wastes in the Solvents and Dioxins Rule (51 FR 40572, November 7, 1986). On February 25, 1986 the Agency amended the listing of F002 and F005 to include four new constituents: 1,1,2-trichloroethane, benzene, 2-ethoxyethanol, and 2-nitropropane (51 FR 6737). These are organic compounds that are usually used for their solvent properties.

Although HSWA directs the Agency to restrict the disposal of these new constituents six months after they were listed, EPA was unable to propose or promulgate treatment standards because there were no SW-846 analytical methods that could satisfactorily analyze 2-ethoxyethanol and 2-nitropropane in complex waste matrices. Therefore, the Agency has been unable to propose treatment standards for these constituents until today's notice.

The Agency synthesized several wastewaters containing these constituents in order to conduct treatability studies and to identify

appropriate analytical methods. To develop today's proposed treatment standards, the Agency modified existing SW-846 analytical methods so that they were applicable to 2-ethoxyethanol and 2-nitropropane. (For further information on the synthesis of these wastewaters and the development of these analytical methods, consult the F002 and F005 Background Document in the administrative record for today's proposal.)

The Agency has determined that biological treatment represents BDAT for treatment of 1,1,2-trichloroethane, benzene, and 2-ethoxyethanol. Wastewater treatment standards are being proposed today for 1,1,2-trichloroethane of 0.03 mg/l, benzene of 0.07 mg/l, and 2-ethoxyethanol of 73.3 mg/l based on the performance of biological treatment.

The Agency has determined that liquid-liquid extraction followed by steam stripping followed by carbon adsorption represents BDAT for 2-nitropropane wastewaters. Based on the performance of this treatment train the Agency is proposing a treatment standard of 0.056 mg/l for this constituent in wastewaters. The Agency also examined the performance of steam stripping alone for treatment of 2-nitropropane wastewaters and developed a treatment standard of 1.35 mg/l. The Agency is concerned about the validity of the steam stripping data because the holding times of the samples supporting the 1.35 mg/l limit were exceeded. The Agency is also evaluating the need for recreating the steam stripping test studies of 2-nitropropane because the reduction of 2-nitropropane was achieved at the expense of significant amounts of energy. The high energy demands may have been a result of an inappropriate steam stripper design or the azeotropic behavior of 2-nitropropane with water. As a result, the Agency is proposing the 0.056 mg/l level, and solicits comment on this proposed approach.

Incineration represents BDAT for all of the newly listed F002 and F005 constituents in nonwastewaters. The Agency does not have incineration data from the treatment of the four newly-listed F002 and F005 organics. However, the Agency has performance data from incineration of nonwastewaters containing treatable concentrations of the same or similar constituents. (See preamble section III.A.1.d. for further discussion of the transfer of treatment standards.) Nonwastewater treatment standards are being proposed today for 1,1,2-trichloroethane of 7.6 mg/kg, benzene of 3.72 mg/kg, and 2-

ethoxyethanol of 47.5 mg/kg, and 2-nitropropane of 5.6 mg/kg, based on the transfer of incineration performance data.

## BDAT TREATMENT STANDARDS FOR F002

## [Nonwastewaters]

Regulated Constituent	Maximum for any single grab sample, total composition (mg/kg)
1,1,2-Trichloroethane.....	6.2

## BDAT TREATMENT STANDARDS FOR F002

## [Wastewaters]

Regulated constituent	Maximum for any composite sample, total Composition (mg/l)
1,1,2-Trichloroethane.....	0.054

## BDAT TREATMENT STANDARDS FOR F005

## [Nonwastewaters]

Regulated constituent	Maximum for any single grab sample, total composition (mg/kg)
Benzene.....	3.72
2-Ethoxyethanol.....	47.5
2-Nitropropane.....	5.6

## BDAT TREATMENT STANDARDS FOR F005

## [Wastewaters]

Regulated constituent	Maximum for any composite sample, total composition (mg/l)
Benzene.....	0.07
2-Ethoxyethanol.....	73.3
2-Nitropropane.....	0.073

*7. Development of Treatment Standards for Multi-Source Leachate—*  
*a. Background.* In the final rule for the First Third Wastes (August 17, 1988 (53 FR 31146-31150)) the Agency reiterated that leachate derived from the disposal of listed wastes is a hazardous waste based on the derived-from rule. The Agency took the position that the waste code-specific treatment standards for the land disposed waste(s) from which the leachate is derived applied to the leachate (this idea has acquired the



label of "waste code carry-through principle", although this label is something of an oversimplification because it merges the ideas of carry-through of a treatment standard with carry-through of a waste label for permitting purposes; these issues need not be identical, as discussed in section e. below). EPA later revisited the issue of leachate treatability and determined that there were significant unresolved issues regarding availability of leachate treatment capacity, and that further study of treatability of leachate derived from the co-disposal of multiple waste codes (i.e., more than two waste codes) was warranted. These wastes have thus been designated as multi-source leachate (see 54 FR 8264 (Feb. 27, 1989)). Single-source leachate must meet the wastewater and nonwastewater standards for the underlying waste code from which it was derived. *Id.*

The Agency consequently rescheduled most multi-source leachate to the third-third of the schedule. *Id.* The only type of multisource leachate not rescheduled is that derived from disposal of the listed dioxin-containing hazardous wastes. Such leachate remains the subject of a judicial stay order entered by a panel from the District of Columbia Circuit Court of Appeals which stays the applicability of the waste code carry-through principle to multi-source leachate whose prohibition date was not rescheduled by the Agency.

(1) *Definition of Multi-source Leachate.* Leachate is defined in 40 CFR 260.10 as any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste. Leachate that is derived from the disposal of listed hazardous wastes is classified as a hazardous waste by virtue of the "derived-from" rule in 40 CFR 261.3(c)(2). Multi-source leachate is leachate that is derived from the disposal of more than one listed hazardous waste (i.e., more than one waste code). 54 FR 8264 (February 27, 1989). EPA is soliciting comment below on considering leachate derived exclusively from F021-F023, and F025-F028 dioxin-containing wastes to be single-source leachate. EPA also solicits comment on a narrower definition of multi-source leachate which would say that leachate must be derived from more than one treatability group (rather than more than one waste code) to be considered "multi-source". EPA is soliciting comment on this point both because it appears that leachate derived exclusively from wastes within a single treatability group would be able to meet the treatment standards for that

treatability group because it is more dilute, and because members of the regulated community have voiced concern at being subject to standards encompassing all toxic pollutants (a virtually inevitable consequence of classifying multi-source leachate as any leachate derived from more than one waste code). By "treatability group, EPA is referring to the groupings of wastes in this proposed rule such as "halogenated aliphatics", or "phenolics". Scheduled wastes from earlier rulemakings would be part of a single treatability group if grouped within an industry grouping in § 261.32 (hazardous wastes generated from specific sources). For example, the K048-052 series of wastes would constitute a single treatability group since all the wastes come from the petroleum refining process.

(2) *Applicability.* Leachate can become subject to the land disposal restrictions if it is removed from a land disposal unit for disposal after the prohibition effective date for the underlying waste [see *Chemical Waste Management v. EPA*, 869 F.2d 1526, 1536 (D.C.Cir. 1989)]. Furthermore, to the extent that such leachate is derived from wastes that were listed as hazardous on November 8, 1984 (the date of the HSWA amendments), it is subject to the statutory hard hammer in section 3004(g) which applies to all wastes that were listed as hazardous on the date of enactment of the HSWA amendments. The time the waste was originally disposed is irrelevant to this analysis; the status of wastes as listed hazardous wastes (and wastes derived from them as listed hazardous wastes) is determined by what the wastes are, not by when they were initially disposed (*Chemical Waste Management*, 869 F.2d at 1536-37).

To further clarify the applicability of the treatment standards to multi-source leachate, the Agency points out the following: (1) Groundwater contaminated with multi-source leachate must comply with the multi-source leachate standards [see e.g. *Chemical Waste Management v. EPA*, *supra*, 869 F.2d at 1539-40]; (2) Single-source leachate (i.e., leachate derived from only one waste code such as might be expected from a monofill) cannot be combined to create multi-source leachate; and (3) Single-source leachate from separate facilities cannot be combined to create multi-source leachate. These last two interpretive principles are needed to prevent abuses that would forestall treatment of prohibited wastes.

b. *Development of Proposed Treatment Standards.* The Agency is

today proposing two options for applicability of BDAT treatment standards for multi-source leachate and residues from leachate treatment: (1) Continued application of only those treatment standards for the waste codes that were land disposed; and (2) application of one fixed set of wastewater treatment standards and one set of nonwastewater treatment standards for all multi-source leachate and treatment residues. These options are discussed later in this preamble section. The Agency is specifically requesting comment on both of these options.

For both options, the number of applicable concentration-based constituent standards could be very large (i.e., there could be more than 200 individual constituent concentrations that would have to be met). This is a consequence of viewing multi-source leachate as its own treatability group; it thus potentially contains any or all of the BDAT list constituents which consequently must be addressed in treatment standards. It is important to point out that under either option, EPA envisions the rule being implemented by leaving the frequency of monitoring for constituents (or indicator parameters) to the judgement of the permit writer, who would specify monitoring frequency in the facility's waste analysis plan. (See further discussion of waste analysis plans in section III.A.1.f.(3.) of today's preamble). As with all BDAT treatment standards, this provides site-specific consideration of the need for monitoring regulated pollutants likely to be present.

EPA is in the process of reviewing these constituents to determine if treatment of the BDAT list of constituents will assure treatment of these other one hundred or so Appendix VIII constituents. If the BDAT list is not adequate as a surrogate for all constituents contained in multi-source leachate, a treatment train could also be specified to assure adequate treatment of all codes.

(1) *Continued Application of Only Those Treatment Standards for the Waste Codes that were Land Disposed.* The first option is to continue to apply the derived-from rule to multi-source leachate for only those treatment standards for the waste codes that were land disposed. As discussed earlier in this section, the derived-from rule would require that leachate meet the standards set for the waste codes from which the leachate is derived. In previous rules, the Agency stated that these treatment standards could be appropriate because leachate is expected to be more dilute than the original wastes on which the



standards were based. At that time, the available waste characterization data for leachate indicated that the concentrations of hazardous constituents in untreated leachate were slightly higher but very similar to the concentrations of hazardous constituents that would meet the promulgated treatment standards. Thus, the Agency concluded that leachate is easier to treat than the original wastes and so could be treated to comply with BDAT.

Administrative complications can arise from applying these standards based on the vast number of potentially applicable treatment standards and the various combinations and permutations of applicable treatment standards. This is further complicated if more than one standard exists for a particular constituent, since the most stringent standard then applies (see § 268.41(b)). Because of the variety in potential applicable treatment standards due to the wide variety of combinations of waste codes, the Agency cannot present, in today's preamble, all of the options of treatment standards that would apply for all combinations of wastes.

EPA solicits comment regarding applicability of treatment standards that are specified methods of treatment should the Agency decide to adopt this option in the final rule. The Agency's tentative resolution is that, for leachate wastewaters, any treatment standard that is a method should apply. This is because all of the specified treatment methods for wastewaters (typically wet air oxidation or chemical precipitation and filtration) are readily applicable wastewater treatment methods to which leachate wastewaters should be amenable.

The situation for leachate nonwastewaters, i.e. the residues from treating leachate, is more complicated. The nonwastewater treatment methods that EPA has specified most frequently are incineration to destroy organics and chemical stabilization for inorganics. Since these are generally-applicable treatment technologies (and form the basis for most of the numerical standards in any case), EPA does not see any difficulty in applying these methods. EPA, however, has also required deactivation and recovery as methods for certain wastes. These methods are less likely to be appropriate to leachate nonwastewaters. As a practical matter, however, EPA expects that the property of reactivity will be removed by treating the leachate itself, so that the treatment residue would never require deactivation. Thus, EPA is not proposing to require this treatment

method for leachate nonwastewaters (should it ultimately adopt standards based on this option). EPA has specified or proposed recovery as a method for certain wastes that contain zinc, lead, or mercury (see section III.A.5. of today's preamble). These treatment methods are required for waste treatability groups that contain recoverable amounts of the target metal. For zinc in K061 wastes the percentage is 15%; for lead in the D008 High Lead Subcategory, the percentage is greater than 2.5 %; for mercury in D009 High Mercury Subcategory, the concentration is 16 mg/kg. EPA is proposing to apply these same thresholds to leachate nonwastewaters derived from wastes subject to these treatment methods. Should the leachate nonwastewater contain less than these concentrations of the target metal, the concentration level based on stabilization would apply. (See also 54 FR 18836 (May 2, 1989) where the Agency adopted a similar approach in revising certain of the no land disposal treatment standards.)

*(2) Establishing One Set of Wastewater Standards and Nonwastewater Standards for Multi-Source Leachate and Treatment Residues.* The Agency received several comments during the first third rulemaking alleging that multi-source leachate can be difficult to treat due to its complex waste matrix (i.e., each leachate and treatment residue has various combinations and concentrations of different hazardous constituents). The commenters suggested that multi-source leachate should be a specific treatability group with its own separate waste code, and that one set of treatment standards (i.e., one standard per constituent) should be established for this group. At that time, however, insufficient data were available to substantiate that multi-source leachate and treatment residues constitute a separate treatability group.

Since the time this issue was first raised, the Agency has received data on the physical and chemical composition of various multi-source leachates and on current multi-source leachate treatment. These data were submitted from various TSDFs to show that multi-source leachate is more difficult to treat than EPA originally thought, and that it deserves classification as a separate treatability group. The Agency is examining waste characterization data and some treatment data to determine the frequency that leachate (both treated and untreated) fails to achieve the existing treatment standards. The treatment data are from treatment systems that are currently being applied

to leachate collected from several sources. These data are being placed in the administrative record for today's proposed rule and will be considered in the promulgation of treatment standards for leachate.

Based on a preliminary analysis of industry data and the various complications that arise in applying the treatment standards to a seemingly endless array of waste combinations, the Agency is proposing, as one option, the applicability of one set of wastewater treatment standards and one set of nonwastewater standards for all multi-source leachates as a means of complying with the waste code carry-through. Although this option may ease the burden of compliance for those facilities land disposing numerous waste codes, it may increase the burden for those facilities land disposing only a few waste codes, who, under this second option, would have to analyze for the entire BDAT list of constituents. (See the earlier solicitation of comment on redefining multi-source leachate as a means of dealing with this potential problem.)

The Agency also is specifically requesting comment on the treatability data submitted by industry that can be found in the administrative record for today's proposed rule. These data may be used by the Agency to develop or to revise the proposed standards based on the second approach (although initial indications are that these data do not come from optimized treatment systems). If any person desires a copy of any additional data pertaining to this proposed treatment standard that is received during the public comment period, please request it in writing by identifying the data of interest as III.A.7 Development of Treatment Standards for Multi-Source Leachate. See section III.A.1.i. for more information on requesting data.

*c. Proposed Treatment Standards Based on Option Two.* In today's notice, EPA is proposing one set of nonwastewater and one set of wastewater treatment standards based on the data currently available according to option two discussed above. As noted previously, the final treatment standards based on this option will depend upon the analysis of additional treatment data received just prior to proposal (these data have been placed in the administrative record for today's notice but have not yet been analyzed for impact on the treatment standards proposed in this notice) and any additional data or comments received during the comment period.



These treatment standards propose the regulation of the entire BDAT list of constituents. The reasoning behind this is that commenters have previously stated that their multi-source leachate is typically derived from the land disposal of every listed hazardous waste, and thus can potentially contain any or all of the BDAT list constituents. More information on how these standards were developed can be found in sections of today's preamble and various background documents. The proposed wastewater and nonwastewater multi-source leachate standards for option two are included in tables at the end of this preamble section.

It is EPA's tentative conclusion that establishing treatment standards for each BDAT constituent obviates the need to specify methods of treatment, should the Agency adopt this option. In other words, the BDAT list would serve as a surrogate for those constituents for which there are no analytic methods. The Agency solicits comment on this point, and specifically requests documentation of the validity of using the BDAT list as surrogates.

(1) *Nonwastewaters.* The Agency is proposing to transfer most of the concentration-based nonwastewater standards for multi-source leachate (option two) based on a direct transfer of existing and proposed nonwastewater treatment standards for the U and P waste codes that correspond to the proposed regulated constituents. For convenience of the reader, the Agency presents a table at the end of this section entitled Basis of Transfer for Multi-Source Leachate Treatment Standards which gives the waste code from which the standard has been proposed to be transferred. This table also includes a reference to further discussion of the development of the proposed standard either in the administrative record, the preamble of today's notice, or the appropriate background document for that particular standard.

Almost all of the nonwastewater standards for organic constituents are based on incineration as BDAT. These constituent concentrations are transferred from treatment standards for U and P waste codes promulgated in the Second Third Rule or proposed in today's preamble. The metal constituent concentrations (except for arsenic, selenium and mercury) are primarily based on a transfer of the performance achieved by stabilization for F006.

(2) *Wastewaters.* Most of the concentration-based wastewater standards were transferred from treatment data on those constituents developed for various other regulatory

programs administered by the Agency, and are based on data from numerous sources. (Since these data apply to the development of treatment standards for other wastewaters besides multi-source leachate, further discussion of these data is presented in section III.A.1.h.(6.) of today's notice.) Some of the treatment standards for wastewater forms of multi-source leachate have been transferred from other listed RCRA wastes. Details on the development or transfer of these wastewater standards per constituent can be found in the administrative record for multi-source leachate.

EPA also has recently conducted a study of the treatment of wastewaters by wet air oxidation followed by PACT or activated carbon. Subsequent to this proposal, these data will be examined for applicability to wastewater constituents in multi-source leachate. In the interim, these data can be found in the administrative record for today's proposed rule. EPA specifically solicits comment on the appropriate use of these data in establishing standards for leachate.

d. *Multi-Source Leachate That Exhibits a Characteristic of Hazardous Wastes.* EPA is not proposing separate standards under option 2 for multi-source leachate that exhibits a characteristic of hazardous wastes. This is because, by proposing standards for all of the BDAT list constituents, the treatment standards will address all of the constituents and properties that the treatment standard for characteristics address. As described more fully in section III.C below, the Agency's proposed resolution of situations where prohibited listed wastes also exhibit a characteristic is that the specific treatment standard for the listed waste would control because it is more specific. As stated further in that section, however, should multi-source leachate or its treatment residues exhibit a characteristic at the point of disposal, it would have to be treated to meet the treatment standard for that characteristic.

Under option 1, if multi-source leachate exhibited a characteristic, one would have to ascertain if the treatment standard for the listed wastes from which the leachate is derived addressed the same constituents or properties identified by the characteristic. If so, the treatment standard for the listed waste would supercede the standard for the characteristic. If not, the leachate and/or treatment residues would have to be treated to meet the treatment standard for both the listed wastes and the characteristic. See section III.C. This same result would obtain for single

source leachate that exhibits a characteristic.

Finally, if leachate simply exhibits a characteristic of hazardous waste without being derived from a listed waste, it is subject to the treatment standard for that characteristic.

e. *Multi-Source Leachate Containing Dioxins and Furans.* A final set of issues pertaining to multi-source leachate involves the status of multi-source leachate that contains chlorinated dibenzo-p-dioxins and furans ("dioxins" and "furans"). Specific points for discussion are applicability of the waste code carry-through principle where the leachate may be derived in part from treatment, storage, or disposal of listed dioxin-containing wastes, applicability of the dioxin land disposal prohibitions, applicability of management standards for acute hazardous wastes, and a need for treatment standards for dioxins and furans.

The most recent characterization data for multi-source leachate indicates presence of dioxins at low concentration levels. These data are gathered from several very large commercial facilities that treat a great number of different wastes; these data should thus be representative of the majority of leachate that may be generated. Based on a review of waste characterization data for fifteen different sources of untreated multi-source leachate, only two data points indicated detectable concentrations of dioxins (based on a range of detection limits of 0.0001 ppb to 0.01 ppb): concentrations of 0.031 ppb tetrachlorodibenzo-p-dioxin in one sample, and .026 ppb pentachlorodibenzo-p-dioxin in another sample (TCDD equivalence: .013 ppb, based on a Toxic Equivalence Factor of 0.5, see 51 FR 19661, June 3, 1986). All other samples showed nondetectable levels for hexa-, penta-, and tetrachlorodibenzo-furans and dioxins. (It is not known if any of the leachates tested derived in part from disposal of listed dioxin-containing wastes.)

These concentration levels are very low, and below the level the Agency believes warrants the special concerns which prompted special management standards for the F021-F023 and F025-F028 wastes, and which prompted Congress to prioritize the dioxin waste land disposal prohibitions (see 51 FR 19859, June 3, 1986). Based on these data, EPA is proposing that the dioxin waste codes not apply to multi-source leachate. Thus, the leachate would remain a hazardous waste but would not be classified under these waste codes. These waste codes trigger extraordinary regulatory and



nonregulatory burdens in the form of extra management standards (50 FR 1978, January 17, 1985), permitting obstacles due to public perceptions, extra management costs, and prioritized land disposal prohibitions. These extraordinary consequences should be reserved for situations where the concentrations of dioxin merit the need for extraordinary controls. This does not appear to be the case for multi-source leachate. (EPA notes that the derived-from rule does not bar the type of reclassification that we are proposing here. The derived-from rule, and the interpretive waste-code carry through principle, establish presumptions that can be rebutted either by an individual party, or by the Agency. Indeed, EPA itself indicated in the original dioxin waste listing regulation that not all wastes derived from managing the listed dioxin-containing wastes are acute hazardous. EPA thus listed waste F028, which is a residue from treating listed dioxin-containing wastes, as a toxic hazardous waste under its own waste code.)

However, to guard against situations where leachate might have higher concentrations of dioxins and furans as a result of management of the listed dioxin-containing wastes (the only circumstance under the existing rules when presence of dioxins would trigger acute hazardous waste status for the leachate), EPA is proposing that leachate that is derived from any or all of the listed dioxin-containing wastes (F021-F023 and F025-F028) and no other hazardous waste continue to be classified as multi-source even if it was derived exclusively from these dioxin-containing wastes, provided more than one was involved.

A consequence of the proposal is rescheduling to the Third multi-source leachate that could have been classified under the dioxin waste code. EPA does not see a legal impediment to this action. As the Agency determined with respect to multi-source leachate that contains listed solvent wastes, EPA does not believe that either the solvent or dioxin statutory prohibitions (RCRA section 3004(e)) are so definite as to the prohibition effective date for multi-source leachate not directly attributable to disposal of a particular solvent or dioxin that the Agency is without discretion to determine an alternative prohibition effective date (see 54 FR 8265, February 27, 1989). Rather, the Agency sees some ambiguity in the classification of multi-source leachate and thus some discretion to reschedule. Because existing data show that the levels of dioxins and furans are so low

or nondetectable, EPA does not presently believe it would be appropriate to classify those multi-source leachates that technically are derived in part from disposal of the listed dioxin-containing waste codes under the dioxin waste prohibition.

For the same reasons, imposition of the special standards for acute hazardous wastes do not appear appropriate for multi-source leachate. Indeed, EPA has already made determinations (or proposed them) that comparable levels of dioxins are not properly classifiable as acute hazardous wastes (see 51 FR 30271 (July 25, 1985); 53 FR 7903 (March 11, 1988); 53 FR 20103 (June 2, 1988); 54 FR 27167 (June 28, 1989)).

The final issue is whether the treatment standards for multi-source leachate should include a treatment standard for dioxins and furans. The Agency is proposing a treatment standard of 1 ppb in the waste, the routinely achievable analytical detection limit. However, it may be that there is no need for a dioxin standard (or a standard for many of the other BDAT list constituents) if control of other constituents will also control the dioxins and furans. Given the apparent low level of dioxins and furans in the untreated leachate, these would appear to be possible candidates for indicator pollutant status since most of the samples could meet the treatment standard even as generated. EPA notes, however, that the issue of indicator pollutants for multi-source leachate treatment standards is not unique to dioxin and potentially includes any of the BDAT list pollutants. EPA accordingly solicits comment on this issue not only for dioxins and furans, but as part of the general issue. EPA also solicits comment on the other issues discussed in this part of the preamble, including any more raw leachate characterization data that may be available.

*f. Separate Waste Code for Multi-Source Leachate.* EPA also solicits comment on one remaining issue: whether multi-source leachate should be redesignated by a separate waste code. This issue is not necessarily related to the question of the treatment standards that should apply to multi-source leachate, since EPA could still determine that the treatment standards proposed under either option 1 or option 2 could apply to multi-source leachate (although, should the Agency adopt an approach based on option 1—carry through of treatment standards—then waste generators and treatment facilities probably could comply with

§ 268.7 (a) and (b) only by listing numerical treatment standards on the land disposal prohibition tracking document). Members of the commercial waste management industry have urged the Agency to establish a separate waste code for multi-source leachate on the grounds that it is a distinct type of waste different from the underlying wastes from which it is derived. In addition, they assert that they will face fewer administrative obstacles, particularly with respect to permit modifications if multi-source leachate and treatment residues have a separate waste code.

EPA solicits comment on this approach, provided it is understood that a decision on this issue does not determine what the treatment standard(s) for multi-source leachate and treatment residues should be. In addition, EPA solicits comment on the possible effect on RCRA permitting of designating multi-source leachate (and treatment residues derived therefrom) by a separate waste code. It would appear that this necessitates amending all RCRA permits that do not already include a narrative description for leachate and leachate treatment residues. EPA also solicits comment on whether designating multi-source leachate by a single waste code should be considered a HSWA regulation immediately effective in authorized states.

#### BDAT TREATMENT STANDARDS FOR MULTI-SOURCE LEACHATE

[Nonwastewaters]

Regulated organic constituents	Maximum for any single grab sample, total composition (mg/kg)
Acetone .....	0.14
Acenaphthalene .....	3.4
Acenaphthene .....	9.1
Acetonitrile .....	0.35
Acrolein .....	2.8
Acetophenone .....	9.6
Acrylamide .....	1.5
2-Acetylaminofluorene .....	13
Acrylonitrile .....	0.28
Aldrin .....	0.066
4-Aminobiphenyl .....	13
Aniline .....	14
Anthracene .....	7.7
Aramite .....	2.5
Aroclor 1016 .....	0.92
Aroclor 1221 .....	0.92
Aroclor 1232 .....	0.92
Aroclor 1242 .....	0.92
Aroclor 1248 .....	0.92
Aroclor 1254 .....	1.8
Aroclor 1260 .....	1.8
alpha-BHC .....	0.066
beta-BHC .....	0.066
delta-BHC .....	0.066
gamma-BHC .....	0.066



BDAT TREATMENT STANDARDS FOR  
MULTI-SOURCE LEACHATE—Continued

[Nonwastewaters]

Regulated organic constituents	Maximum for any single grab sample, total composition (mg/kg)
Benzene.....	36
Benzal chloride.....	6.2
Benzene thiol.....	6.2
Benzo(a)anthracene.....	3.6
Benzo(b)fluoranthene.....	3.4
Benzo(k)fluoranthene.....	3.4
Benzo(g,h,i)perylene.....	1.8
Benzo(a)pyrene.....	3.6
p-Benzoquinone.....	180
Bromodichloromethane.....	16
Bromoform.....	16
Bromomethane (methyl bromide).....	16
4-Bromophenyl phenyl ether.....	16
n-Butanol.....	2.6
Butyl benzyl phthalate.....	15
2-sec-Butyl-4,6-dinitrophenol.....	2.5
Carbon tetrachloride.....	6.2
Chlordane.....	0.13
p-Chloroaniline.....	16
Chlorobenzene.....	5.7
Chlorobenzilate.....	6.6
2-Chloro-1,3-butadiene.....	28
Chlorodibromomethane.....	16
Chloroethane.....	6.0
bis-(2-Chloroethoxy) methane.....	7.2
bis-(2-Chloroethyl) ether.....	7.2
Chloroform.....	6.2
bis-(2-Chloroisopropyl) ether.....	7.2
p-Chloro-m-cresol.....	14
Chloromethane.....	5.6
2-Chloronaphthalene.....	5.6
2-Chlorophenol.....	5.7
3-Chloropropene.....	28
Chrysene.....	3.6
o-Cresol.....	5.6
Cresol (m- and p-isomers).....	3.2
Cyclohexanone.....	1.9
1,2-Dibromo-3-Chloropropane.....	16
1,2-Dibromoethane (Ethylene dibromide).....	16
Dibromomethane.....	16
2,4-Dichlorophenoxyacetic acid (2,4-D).....	10
o,p'-DDD.....	0.087
p,p'-DDD.....	0.087
o,p'-DDE.....	0.087
p,p'-DDE.....	0.087
o,p'-DDT.....	0.087
p,p'-DDT.....	0.087
Dibenzo(a,h)anthracene.....	13
1,2,7,8-Dibenzopyrene.....	22
tris-(2,3-Dibromopropyl) phosphate.....	0.1
m-Dichlorobenzene.....	6.2
o-Dichlorobenzene.....	6.2
p-Dichlorobenzene.....	6.2
3,3'-Dichlorobenzidine.....	16
cis-1,4-Dichloro-2-butene.....	30
trans-1,4-Dichloro-2-butene.....	30
Dichlorodifluoromethane.....	10
1,1-Dichloroethane.....	6.2
1,2-Dichloroethane.....	6.2
1,1-Dichloroethylene.....	6.2
trans-1,2-Dichloroethylene.....	6.2
2,4-Dichlorophenol.....	14
2,6-Dichlorophenol.....	14
1,2-Dichloropropane.....	15
cis-1,3-Dichloropropene.....	15
trans-1,3-Dichloropropene.....	15
Dieldrin.....	0.13

BDAT TREATMENT STANDARDS FOR  
MULTI-SOURCE LEACHATE—Continued

[Nonwastewaters]

Regulated organic constituents	Maximum for any single grab sample, total composition (mg/kg)
Diethyl phthalate.....	28
p-Dimethylaminoazobenzene.....	29
2,4-Dimethyl phenol.....	14
Dimethyl phthalate.....	28
Di-n-butyl phthalate.....	28
1,4-Dinitrobenzene.....	2.3
4,6-Dinitrocresol.....	140
2,4-Dinitrophenol.....	140
2,4-Dinitrotoluene.....	140
2,6-Dinitrotoluene.....	28
Di-n-octyl phthalate.....	28
Diphenylamine.....	13
Diphenylnitrosoamine.....	13
Di-n-propylnitrosoamine.....	14
1,4-Dioxane.....	280
Disulfoton.....	0.1
Endosulfan I.....	0.066
Endosulfan II.....	0.13
Endosulfan sulfate.....	0.13
Endrin.....	0.13
Endrin aldehyde.....	0.13
Ethyl acetate.....	5.6
Ethyl benzene.....	6.0
Ethyl ether.....	140
bis-(2-Ethylhexyl) phthalate.....	28
Ethyl methacrylate.....	160
Famphur.....	0.1
Fluoranthene.....	3.6
Fluorene.....	7.7
Fluorotrichloromethane.....	33
Heptachlor.....	0.066
Heptachlor epoxide.....	0.066
Hexachlorobenzene.....	37
Hexachlorobutadiene.....	28
Hexachlorocyclopentadiene.....	4.8
Hexachlorodibenzo-furans.....	0.001
Hexachlorodibenzo-p-dioxins.....	0.001
Hexachloroethane.....	30
Hexachlorophene.....	1.1
Hexachloropropene.....	37
Indeno(1,2,3-c,d)pyrene.....	3.6
Iodomethane.....	65
Isobutanol.....	170
Isodrin.....	0.010
Isosafrole.....	2.6
Kepone.....	0.043
Methacrylonitrile.....	84
Methanol.....	140
Methapyrilene.....	6.9
Methoxychlor.....	0.18
3-Methylchloanthrene.....	33
4,4-Methylene-bis-(2-chloroaniline).....	29
Methylene chloride.....	31
Methyl ethyl ketone.....	200
Methyl isobutyl ketone.....	33
Methyl methacrylate.....	160
Methyl Parathion.....	0.1
Naphthalene.....	5.9
1,4-Naphthoquinone.....	1.9
1-Naphthylamine.....	15
2-Naphthylamine.....	15
p-Nitroaniline.....	28
Nitrobenzene.....	14
5-Nitro-o-toluidine.....	56
4-Nitrophenol.....	65
N-Nitrosodiethylamine.....	28
N-Nitrosodimethylamine.....	56
N-Nitroso-di-n-butylamine.....	54
N-Nitrosomethylethylamine.....	2.3

BDAT TREATMENT STANDARDS FOR  
MULTI-SOURCE LEACHATE—Continued

[Nonwastewaters]

Regulated organic constituents	Maximum for any single grab sample, total composition (mg/kg)
N-Nitrosomorpholine.....	2.3
N-Nitrosopiperidine.....	220
N-Nitrosopyrrolidine.....	220
Parathion.....	0.1
Pentachlorobenzene.....	37
Pentachlorodibenzo-furans.....	0.001
Pentachlorodibenzo-p-dioxins.....	0.001
Pentachloroethane.....	31
Pentachloronitrobenzene.....	4.8
Pentachlorophenol.....	37
Phenacetin.....	16
Phenanthrene.....	3.4
Phenol.....	6.2
Phorate.....	0.1
Phthalic anhydride (measured as phthalic acid).....	28
Propanenitrile.....	360
Pronamide.....	1.5
Pyrene.....	9.1
Pyridine.....	16
Resorcinol.....	1.8
Safrole.....	22
Silvex (2,4,5-TP).....	2.1
2,4,5-T.....	2.1
1,2,4,5-Tetrachlorobenzene.....	19
Tetrachlorodibenzo-furans.....	0.001
Tetrachlorodibenzo-p-dioxins.....	0.001
1,1,1,2-Tetrachloroethane.....	6.2
1,1,2,2-Tetrachloroethane.....	6.2
Tetrachloroethylene.....	6.2
2,3,4,6-Tetrachlorophenol.....	37
Toluene.....	28
Toxaphene.....	1.3
1,2,4-Trichlorobenzene.....	19
1,1,1-Trichloroethane.....	6.2
1,1,2-Trichloroethane.....	6.2
Trichloroethylene.....	5.6
2,4,5-Trichlorophenol.....	37
2,4,6-Trichlorophenol.....	37
1,2,3-Trichloropropane.....	28
1,1,2-Trichloro-1,2,2-trifluoro-ethane.....	28
Vinyl chloride.....	0.035
Xylene(s).....	33
Cyanides (Total).....	1.5
Cyanides (Amenable).....	0.10

Regulated inorganic constituents	Maximum for any single grab sample, TCLP (mg/l)
Antimony.....	0.23
Arsenic.....	5.6
Barium.....	100
Cadmium.....	0.066
Chromium (Total).....	5.0
Lead.....	0.51
Mercury.....	0.2
Nickel.....	0.32
Selenium.....	5.6
Silver.....	0.072
Thallium.....	5.6



**BDAT TREATMENT STANDARDS FOR  
MULTI-SOURCE LEACHATE**  
[Wastewaters]\*

Regulated organic and inorganic constituents	Maximum for any 24 hr. composite, total composition (mg/l)	Regulated organic and inorganic constituents	Maximum for any 24 hr. composite, total composition (mg/l)	Regulated organic and inorganic constituents	Maximum for any 24 hr. composite, total composition (mg/l)
Acetone	0.162	Dibenzo(a,h)anthracene	0.040	Methyl methacrylate	0.032
Acenaphthalene	0.059	tris-(2,3-Dibromopropyl) phosphate	0.080	Methyl Parathion	0.336
Acenaphthene	0.059	m-Dichlorobenzene	0.014	Naphthalene	0.059
Acetonitrile	0.097	o-Dichlorobenzene	0.064	1,4-Naphthoquinone	0.020
Acrolein	0.162	p-Dichlorobenzene	0.088	1-Naphthylamine	0.378
Acetophenone	41.198	3,3'-Dichlorobenzidine	0.095	2-Naphthylamine	0.378
Acrylamide	1.042	cis-1,4-Dichloro-2-butene	0.021	p-Nitroaniline	0.020
2-Acetylaminofluorene	0.040	trans-1,4-Dichloro-2-butene	0.021	Nitrobenzene	0.068
Acrylonitrile	0.242	Dichlorodifluoromethane	0.130	5-Nitro-o-toluidine	0.230
Aldrin	0.021	1,1-Dichloroethane	0.059	4-Nitrophenol	0.124
4-Aminobiphenyl	0.095	1,2-Dichloroethane	0.211	N-Nitrosodiethylamine	0.290
Aniline	0.807	1,1-Dichloroethylene	0.025	N-Nitrosodimethylamine	0.290
Anthracene	0.059	trans-1,2-Dichloroethylene	0.054	N-Nitroso-di-n-butylamine	0.290
Aramite	0.020	2,4-Dichlorophenol	0.076	N-Nitrosomethylthylamine	0.290
Aroclor 1016	0.013	2,6-Dichlorophenol	0.076	N-Nitrosomorpholine	0.290
Aroclor 1221	0.014	1,2-Dichloropropane	0.482	N-Nitrosopiperidine	0.010
Aroclor 1232	0.013	cis-1,3-Dichloropropene	0.021	N-Nitrosopyrrolidine	0.010
Aroclor 1242	0.017	trans-1,3-Dichloropropene	0.021	Parathion	0.336
Aroclor 1248	0.013	Dieldrin	0.017	Pentachlorobenzene	0.040
Aroclor 1254	0.014	Diethyl phthalate	0.203	Pentachlorodibenzo-furans	0.000023
Aroclor 1260	0.014	3,3-Dimethoxybenzidine	0.095	Pentachlorodibenzo-p-dioxins	0.000018
alpha-BHC	0.00014	p-Dimethylaminoazobenzene	0.095	Pentachloroethane	0.040
beta-BHC	0.00014	3,3'-Dimethylbenzidine	0.095	Pentachloronitrobenzene	0.040
delta-BHC	0.023	2,4-Dimethyl phenol	0.036	Pentachlorophenol	0.082
gamma-BHC	0.00168	Dimethyl phthalate	0.047	Phenacetin	9.542
Benzal chloride	0.040	Di-n-butyl phthalate	0.057	Phenanthrene	0.059
Benzene	0.136	1,4-Dinitrobenzene	0.231	Phenol	0.026
Benzene thiol	0.219	4,6-Dinitroresol	0.277	Phorate	0.770
Benzo(a)anthracene	0.059	2,4-Dinitrophenol	0.123	Phthalic anhydride (measured as phthalic acid)	0.020
Benzo(a)pyrene	0.061	2,4-Dinitrotoluene	0.235	Propanenitrile (ethyl cyanide)	23.0
Benzo(b)fluoranthene	0.040	2,6-Dinitrotoluene	0.398	Pronamide	0.083
Benzo(g,h,i)perylene	0.004	Di-n-octyl phthalate	0.012	Pyrene	0.067
Benzo(k) fluoranthene	0.059	Di-n-propylnitrosoamine	0.400	Pyridine	0.008
p-Benzquinone	0.020	Diphenylamine	0.378	Resorcinol	0.042
Bromodichloromethane	0.198	1,2-Diphenyl hydrazine	0.063	Safrole	9.542
Bromomethane (methyl bromide)	0.065	Diphenylnitrosoamine	0.290	Silvex (2,4,5-TP)	0.721
4-Bromophenyl phenyl ether	0.040	1,4-Dioxane	28	2,4,5-T	0.721
n-Butanol	0.137	Disulfoton	0.770	1,2,4,5-Tetrachlorobenzene	0.040
Butyl benzyl phthalate	0.012	Endosulfan I	0.023	Tetrachlorodibenzo-furans	0.0000088
2-sec-Butyl-4,6-dinitrophenol	1.436	Endosulfan II	0.029	Tetrachlorodibenzo-p-dioxins	0.0000062
Carbon tetrachloride	0.032	Endosulfan sulfate	0.029	1,1,1,2-Tetrachloroethane	0.032
Carbon disulfide	0.179	Endrin	0.00279	1,1,2,2-Tetrachloroethane	0.032
Chlordane	0.00327	Endrin aldehyde	0.025	Tetrachloroethylene	0.056
p-Chloroaniline	43.736	Ethyl acetate	0.195	2,3,4,6-Tetrachlorophenol	0.051
Chlorobenzene	0.032	Ethyl benzene	0.032	Toluene	0.060
Chlorobenzilate	0.072	Ethyl ether	0.067	Toxaphene	0.0095
2-Chloro-1,3-butadiene	0.032	bis-(2-Ethylhexyl) phthalate	0.279	Tribromomethane (bromofom)	0.357
Chlorodibromomethane	0.032	Ethyl methacrylate	0.032	1,2,4-Trichlorobenzene	0.046
Chloroethane	0.268	Ethylene oxide	127.4	1,1,1-Trichloroethane	0.054
bis-(2-Chloroethoxy) methane	0.008	Famphur	0.336	1,1,2-Trichloroethane	0.054
bis-(2-Chloroethyl) ether	0.024	Fluoranthene	0.068	Trichloroethylene	0.054
2-Chloroethyl vinyl ether	0.035	Fluorene	0.059	2,4,5-Trichlorophenol	0.008
Chloroform	0.046	Fluorotrichloromethane	0.023	2,4,6-Trichlorophenol	0.008
bis-(2-Chloroisopropyl) ether	0.040	Heptachlor	0.00116	1,2,3-Trichloropropane	0.482
p-Chloro-m-cresol	0.053	Heptachlor epoxide	0.016	1,1,2-Trichloro-1,2,2-trifluoroethane	6.496
Chloromethane (methyl chloride)	0.190	Hexachlorobenzene	0.040	Vinyl chloride	0.268
2-Chloronaphthalene	0.040	Hexachlorobutadiene	0.040	Xylene(s)	0.182
2-Chlorophenol	0.051	Hexachlorocyclopentadiene	0.041	Cyanides (Total)	1.9
3-Chloropropene	0.021	Hexachlorodibenzo-furans	0.000035	Cyanides (Amenable)	0.10
Chrysene	0.059	Hexachlorodibenzo-p-dioxins	0.000031	Fluoride	35
o-Cresol	0.189	Hexachloroethane	0.040	Sulfide	14
Cresol (m- and p- isomers)	1.315	Hexachlorophene	0.00111	Antimony	1.930
Cyclohexanone	0.020	Hexachloropropene	0.025	Arsenic	1.390
1,2-Dibromo-3-chloropropane	0.065	Indeno(1,2,3-c,d)pyrene	0.004	Barium	1.150
1,2-Dibromoethane	0.016	Iodomethane	0.162	Beryllium	0.820
Dibromomethane	0.065	Isobutanol	0.125	Cadmium	0.200
2,4-Dichlorophenoxyacetic acid	0.721	Isodrin	0.021	Chromium (Total)	0.370
o,p'-DDD	0.023	Isosafrole	9.542	Copper	1.280
p,p'-DDD	0.023	Kepone	0.0095	Lead	0.280
o,p'-DDE	0.031	Methacrylonitrile	28	Mercury	0.150
p,p'-DDE	0.031	Methanol	0.033	Nickel	0.550
o,p'-DDT	0.00392	Methapyrene	9.542	Selenium	0.820
p,p'-DDT	0.00392	Methoxychlor	0.252	Silver	0.290
Dibenzo(a,e)pyrene (1;2;7;8)	0.041	3-Methylchloanthrene	0.004	Thallium	1.400
		4,4-Methylene-bis-(2-chloroaniline)	0.358	Vanadium	0.042
		Methylene chloride	0.089		
		Methyl ethyl ketone	0.016		
		Methyl isobutyl ketone	0.032		



Regulated organic and inorganic constituents	Maximum for any 24 hr. composite, total composition (mg/l)
Zinc .....	1.020

\*Note: These proposed standards for wastewater forms of Multi-source leachate represent alternative standards for the U and P wastewaters that correspond to chemicals listed in this table. As an example: the standard for acetone listed above is an alternative standard for U002 (acetone) wastewaters, etc. Not all constituents listed in the above table have a corresponding U or P waste codes. These generally represent other Appendix VIII (40 CFR 261) constituents that were not listed as U or P wastes. See background information on the development of these alternative standards in section III.A.1.h.(6)(b).

#### BASIS OF TRANSFER FOR NON-WASTEWATER TREATMENT STANDARDS

##### NONWASTEWATER FOR MULTI-SOURCE LEACHATE

Regulated organic constituents	Refer to waste code	Reference for standard
Acetone .....	U002	A
Acenaphthalene .....		B
Acenaphthene .....		B
Acetonitrile .....	U009	C
Acrolein .....	P003	A
Acetophenone .....	U004	A
Acrylamide .....	U007	C
2-Acetylaminofluorene .....	U005	D
Acrylonitrile .....	U009	C
Aldrin .....	P004	E
4-Aminobiphenyl .....		B
Aniline .....	U012	C
Anthracene .....		B
Aramite .....		B
Aroclor 1016 .....	K085	E
Aroclor 1221 .....	K085	E
Aroclor 1232 .....	K085	E
Aroclor 1242 .....	K085	E
Aroclor 1248 .....	K085	E
Aroclor 1254 .....	K085	E
Aroclor 1260 .....	K085	E
alpha-BHC .....	U129	E
beta-BHC .....	U129	E
delta-BHC .....	U129	E
gamma-BHC .....	U129	E
Benzene .....	U019	F
Benzal chloride .....		B
Benzo(a)anthracene .....	U018	D
Benzo(b)fluoranthene .....		B
Benzo(k)fluoranthene .....		B
Benzo(g,h,i)perylene .....		B
Benzo(a)pyrene .....	U022	D
p-Benzoquinone .....	U197	A
n-Butanol .....	U031	A
Butyl benzyl phthalate .....		B
2-sec-Butyl-4,6-dinitrophenol .....	P020	I
Carbon tetrachloride .....	U211	G
Chlordane .....	U036	E
p-Chloroaniline .....	P024	H
Chlorobenzene .....	U037	E
Chlorobenzilate .....	U038	E
2-Chloro-1,3-butadiene .....		B
Chloroethane .....		B
bis-(2-Chloroethoxy) methane .....	U024	C
bis-(2-Chloroethyl) ether .....	U025	C
2-Chloroethyl vinyl ether .....	U042	C
Chloroform .....	U044	G
bis-(2-Chloroisopropyl) ether .....	U027	C
p-Chloro-m-cresol .....	U039	S

#### BASIS OF TRANSFER FOR NON-WASTEWATER TREATMENT STANDARDS—Continued

Regulated organic constituents	Refer to waste code	Reference for standard
Chloromethane .....	U045	C
2-Chloronaphthalene .....	U047	H
2-Chlorophenol .....	U048	S
3-Chloropropene .....		B
Chrysene .....	U050	D
o-Cresol .....	U052	I
Cresol (m- and p- isomers) .....	U052	I
Cyclohexanone .....	U057	A
2,4-Dichlorophenoxyacetic acid (2,4-D) .....	U240	E
o,p'-DDD .....	U060	E
p,p'-DDD .....	U060	E
o,p'-DDE .....	U061	E
p,p'-DDE .....	U061	E
o,p'-DDT .....	U061	E
p,p'-DDT .....	U061	E
Dibenzo(a,h)anthracene .....	U063	D
1,2,7,8-Dibenzopyrene .....	U064	D
tris-(2,3-Dibromopropyl) phosphate .....	U235	J
m-Dichlorobenzene .....	U071	E
o-Dichlorobenzene .....	U070	E
p-Dichlorobenzene .....	U072	E
3,3'-Dichlorobenzidine .....	U073	H
cis-1,4-Dichloro-2-butene .....	U074	G
trans-1,4-Dichloro-2-butene .....	U074	G
Dichlorodifluoromethane .....	U075	H
1,1-Dichloroethane .....	U076	G
1,2-Dichloroethane .....	U077	G
1,1-Dichloroethylene .....	U078	G
trans-1,2-Dichloroethylene .....	U079	G
2,4-Dichlorophenol .....	U081	S
2,6-Dichlorophenol .....	U082	S
1,2-Dichloropropane .....	U083	G
cis-1,3-Dichloropropene .....	U084	G
trans-1,3-Dichloropropene .....	U084	G
Dieldrin .....	P037	E
Diethyl phthalate .....	U088	K
3,3-Dimethoxybenzidine .....	U091	C
p-Dimethylaminoazobenzene .....	U093	C
3,3'-Dimethylbenzidine .....	U095	C
2,4-Dimethyl phenol .....	U101	I
Dimethyl phthalate .....	U102	K
Di-n-butyl phthalate .....	U069	B
1,4-Dinitrobenzene .....		K
4,6-Dinitrocresol .....	P047	I
2,4-Dinitrophenol .....	P048	I
2,4-Dinitrotoluene .....	U105	C
2,6-Dinitrotoluene .....	U106	C
Di-n-octyl phthalate .....	U107	K
Diphenylamine .....		B
Diphenylnitrosoamine .....		B
Di-n-propylnitrosoamine .....	U111	C
1,4-Dioxane .....	U108	A
Disulfoton .....	P039	J
Endosulfan I .....	P050	E
Endosulfan II .....	P050	E
Endosulfan sulfate .....	P050	E
Endrin .....	P051	E
Endrin aldehyde .....	P051	E
Ethyl acetate .....	U112	A
Ethyl benzene .....	1	B
Ethyl ether .....	U117	A
bis-(2-Ethylhexyl) phthalate .....	U028	K
Ethyl methacrylate .....	U118	A
Famphur .....	P097	J
Fluoranthene .....	U120	D
Fluorene .....		B
Fluorotrichloromethane .....	U121	H
Heptachlor .....	P059	E
Heptachlor epoxide .....	P059	E
Hexachlorobenzene .....	U127	E
Hexachlorobutadiene .....	U128	E

#### BASIS OF TRANSFER FOR NON-WASTEWATER TREATMENT STANDARDS—Continued

Regulated organic constituents	Refer to waste code	Reference for standard
Hexachlorocyclopentadiene .....	U130	E
Hexachlorodibenzo-furans .....		M
Hexachlorodibenzo-p-dioxins .....		M
Hexachloroethane .....	U131	G
Hexachlorophene .....	U132	E
Hexachloropropene .....	U243	G
Indeno(1,2,3-c,d)pyrene .....	U137	D
Iodomethane .....	U138	H
Isobutanol .....	U140	A
Isodrin .....	P060	E
isosafrole .....	U141	L
Kepone .....	U142	E
Methacrylonitrile .....	U152	C
Methanol .....	K086	A
Methapyrene .....	U155	L
Methoxychlor .....	U247	E
3-Methylchloranthrene .....	U157	D
4,4-Methylene-bis-(2-chloroaniline) .....	U158	H
Methylene chloride .....	U080	G
Methyl ethyl ketone .....	U159	A
Methyl isobutyl ketone .....	U161	A
Methyl methacrylate .....	U162	A
Methyl Parathion .....	P071	J
Naphthalene .....	U165	D
1,4-Naphthoquinone .....	U166	A
1-Naphthylamine .....	U167	C
2-Naphthylamine .....	U168	C
p-Nitroaniline .....	P077	C
Nitrobenzene .....	U169	C
5-Nitro-o-toluidine .....	U181	C
4-Nitrophenol .....	U170	I
N-Nitrosodiethylamine .....	U174	C
N-Nitrosodimethylamine .....	P082	C
N-Nitroso-di-n-butylamine .....	U172	C
N-Nitrosomethylethylamine .....		B
N-Nitrosomorpholine .....		B
N-Nitrosopiperidine .....	U179	C
N-Nitrosopyrrolidine .....	U180	C
Parathion .....	P089	J
Pentachlorobenzene .....	U183	E
Pentachlorodibenzo-furans .....		M
Pentachlorodibenzo-p-dioxins .....		M
Pentachloroethane .....	U184	G
Pentachloronitrobenzene .....	U185	E
Pentachlorophenol .....		B
Phenacetin .....	U187	L
Phenanthrene .....		B
Phenol .....	U188	I
Phorate .....	P094	J
Phthalic anhydride .....		K
(measured as phthalic acid) .....	U190	K
Propanenitrile .....	P101	C
Pronamide .....	U192	H
Pyrene .....		B
Pyridine .....	U196	C
Resorcinol .....	U201	I
Safrole .....	U203	L
Silvex (2,4,5-TP) .....		B
2,4,5-T .....		B
1,2,4,5-Tetrachlorobenzene .....	U207	E
Tetrachlorodibenzo-furans .....		M
Tetrachlorodibenzo-p-dioxins .....		M
1,1,1,2-Tetrachloroethane .....	U208	G
1,1,2,2-Tetrachloroethane .....	U209	G
Tetrachloroethylene .....	U210	G
2,3,4,6-Tetrachlorophenol .....		B
Toluene .....	U220	F
Toxaphene .....	P123	E
1,2,4-Trichlorobenzene .....		B
1,1,1-Trichloroethane .....	U226	G
1,1,2-Trichloroethane .....	U227	G
Trichloroethylene .....	U228	G



BASIS OF TRANSFER FOR NON-  
WASTEWATER TREATMENT STANDARDS—Continued

Regulated organic constituents	Refer to waste code	Reference for standard
2,4,5-Trichlorophenol		B
2,4,6-Trichlorophenol		B
1,2,3-Trichloropropane		B
1,1,2-Trichloro-1,2,2-trifluoroethane		B
Vinyl chloride	U043	H
Xylene(s)	U239	F
Cyanides (Total)	D003	N
Cyanides (Amenable)	D003	N
Arsenic	D004	O
Barium	D005	P
Cadmium	D006	Q
Chromium (Total)	D007	U
Lead	D008	V
Mercury	D009	R
Nickel		P
Selenium	D010	O
Silver	D011	W
Thallium		T

## (REFERENCES)

- A—See development of standards presented in section III.A.3.e. Oxygenated Hydrocarbons and Heterocyclics
- B—See previous discussion in III.A.7. and Basis for Multi-Source Leachate Transfers in the Administrative Record for today's proposal
- C—See development of standards presented in section III.A.3.f. Organo-Nitrogen Compounds
- D—See development of standards presented in section III.A.3.c. Polynuclear Aromatics Hydrocarbons
- F—See development of standards presented in section III.A.2.c. Halogenated Pesticides and Chlorobenzenes
- F—See development of standards presented in section III.A.3.b. Aromatics and Other Hydrocarbons
- G—See development of standards presented in section III.A.2.b. Halogenated Aliphatics
- H—See development of standards presented in section III.A.2.f. Miscellaneous Halogenated Organics
- I—See development of standards presented in section III.A.3.d. Phenolics
- J—See discussion on Organophosphorus wastes in Second Third Final Rule (54 FR 28628)
- K—See discussion on Phthalate wastes in Second Third Final Rule (54 FR 28620)
- L—See development of standards presented in section III.A.3.h. Wastes of a Pharmaceutical Nature
- M—Transferred from F020, F021, F022, F023, F025, F026 and F027
- N—See development of standards presented in section III.A.6.a. Cyanides
- O—See development of standards presented in section III.A.5.b. Arsenic and Selenium
- P—See development of standards presented in section III.A.5.c. Barium
- Q—See development of standards presented in section III.A.5.d. Cadmium

R—See development of standards presented in section III.A.5.g. Mercury

S—See development of standards presented in section III.A.2.d. Halogenated Phenolics

T—See development of standards presented in section III.A.5.i. Thallium

U—See development of standards presented in section III.A.5.e. Chromium

V—See development of standards presented in section III.A.5.f. Lead

W—See development of standards presented in section III.A.5.h. Silver

## 8. Clarification of Applicability of Treatment Standards to Soil and Debris.

Soil and debris contaminated with wastes subject to the land disposal restrictions are likewise subject to the restrictions. Contaminated soil and debris must meet the promulgated treatment standards for the contaminating hazardous wastes prior to land disposal.

The Agency realizes, however, there are certain problems associated with regulating hazardous wastes in soil and debris matrices. It is often difficult to determine the level of contaminant concentrations found in soil and debris because it may be difficult to obtain a representative sample of the waste. Another problem is posed by the wide variety of soil and debris that could be subject to the land disposal restrictions. In the case of debris, the size ranges from clay-sized particles to large contaminated tanks and buildings. Therefore, a separate rulemaking is being prepared that will establish treatability groups and treatment standards for contaminated soil and debris.

Until contaminated soil and debris can be better organized into treatability groups, alternate treatment standards for these wastes can be established as a site-specific variance from the treatment standards (see 53 FR 3122, August 17, 1988). Categorizing such waste according to type, volume, form, and contaminant concentration poses several problems best resolved on a site-specific basis. To be granted a site-specific variance from the treatment standard, the petitioner must demonstrate that because the physical (or chemical) properties of the waste differ significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

A particularly difficult problem arises with respect to scrap metal contaminated with some listed wastes. When BDAT standards for these listed wastes limit metal concentrations to relatively low leachable levels based on stabilization, it can be infeasible to achieve these standards, in some cases,

due to the presence of metals scrap in the waste mixture. Therefore, EPA solicits comment as to whether these scrap metal/listed waste mixtures should be exempt from BDAT standards associated with the listed wastes for metal contained in the scrap prior to contamination with the listed waste. Any comments supporting this approach should address the obvious difficulties in demonstrating which metals were present (and at what concentrations) in the uncontaminated scrap. We also solicit comment on whether the definition of scrap in 40 CFR 261.1 provides an adequate basis for the purposes of this exemption.

EPA wishes to emphasize that, under this scenario, the contaminated scrap metal would remain a listed hazardous waste for the purposes of other Subtitle C requirements. In addition, any such scrap/listed waste mixture that exhibits a hazardous characteristic (such as EP toxicity) would be subject to the BDAT standards for those characteristic wastes. We also believe that the dilution prohibition properly extends to this situation. Unless EPA requires that the exemption applies only scrap unavoidably contaminated with listed waste (such as materials generated by remedial clean-ups or discarded treatment equipment that contained the waste), there would be an obvious incentive to mix scrap with listed wastes that have BDAT metal standards to avoid the need to comply with those standards. Therefore, EPA intends to restrict the exemption to scrap metal that (1) has been unavoidably contaminated and (2) has had all listed waste removed by rinsing or other demonstrated decontamination techniques.

EPA requests comment on whether it should, in the near term, establish specific measures for "unavoidably contaminated" and "all listed waste removed". We think that these concepts will prove difficult to establish in the near term, and, therefore, expect to leave these determinations to permit writers to establish on a site-specific basis in waste analysis plans. In the longer term, however, EPA will be developing BDAT standards for contaminated soil and debris that may well establish the proper methods of decontamination. Because of an apparent need to resolve this issue on a rapid basis to avoid impacting needed remedial cleanups and corrective actions, EPA today is rescheduling the F006, F007, F008, F009, F010, F011, and F012 standards for cadmium, chromium, lead, nickel, and silver to the "third third". This rescheduling applies only to



scrap which has been determined to be unavoidably contaminated and to no longer contain listed waste. Because of the urgent need for action and specific statutory language exempting such decisions from review, we do not intend to solicit comment on the rescheduling and, instead, are making the action effective today. The effect of this rescheduling is to provide temporary relief for these wastes while EPA considers the comments on these issues.

**9. Treatment Standards for Lab Packs.** The Agency received several comments in response to the Second Third proposed rule on the regulatory status of lab packs. The commenters stated that lab packs are typically used by industry to dispose of small quantities of commercial chemical products (U and P wastes) and analytical samples that may contain F and K wastes. These lab packs may contain hundreds of restricted wastes, and the applicable treatment standards (or soft hammer requirements until May 8, 1990) must be achieved for each waste code contained in the lab pack. The commenters stated that these requirements pose an administrative burden that is incommensurate with the amount of waste land disposed.

In the Second Third final rule (54 FR 26594), the Agency restated its position that all restricted wastes placed in lab packs and land disposed must comply with the land disposal restrictions. However, the Agency solicited comments, data, and specific suggestions to support treatment options for lab packs. The Agency is today proposing an approach for lab packs that establishes alternate treatment standards expressed as technologies for those lab packs meeting certain criteria. Lab packs that do not meet these criteria must meet the applicable treatment standard for each waste contained in the lab pack. The Agency notes that the proposed approach would not be mandatory and that generators of lab packs who wish to comply with the current implementation of the land disposal restrictions regulatory framework as it applies to lab packs would be free to do so.

The approach proposed in today's rule establishes incineration as the alternate treatment standard for lab packs containing certain characteristic waste and listed organic hazardous waste codes only, and stabilization for lab packs containing certain EP toxic metals only. The Agency has developed appendices to 40 CFR part 268 for the purpose of identifying waste codes and constituents to which the alternate treatment standards are applicable.

Appendix IV to part 268 identifies waste codes that may be included in an "organic lab pack." Appendix V to part 268 lists inorganic constituents that may be included in an "inorganic lab pack." Where lab packs contain organic or inorganic waste other than those specified in Appendix IV or V (including non-hazardous waste), or where organic and inorganic wastes are commingled in a lab pack, the treatment standards and other restrictions for each waste code in the lab pack must be achieved.

The Agency believes its proposed approach, although narrowly defined, provides some administrative relief sought by the commenters. It simplifies the management system for these wastes because owners/operators will not be required to analyze the treatment residue for compliance with individual treatment standards. However, generators must continue to list each waste code contained in the lab pack on the notification form according to the requirements of § 268.7. Lab packs that are treated by the specified technology may be disposed of in Subtitle C facilities without further testing or analysis.

Agency data indicate that organic constituents can be effectively destroyed by incineration in well-designed, well-operated incinerators that meet the requirements of part 264 or 265 subpart O. For example, treatment standards for most solvents, dioxins, California list halogenated organic compounds (HOCs), and First, Second, and Third Third organic wastes are expressed as a numerical standard derived from incineration of the waste. In some cases, the treatment standard is specified as incineration (e.g., for most California list HOCs). Although the Agency lacks specific treatability data for lab packs containing organic waste, it believes that incineration of organic lab pack waste will significantly reduce the risks posed by land disposal, and simplify the management of these small volume wastes. Therefore, the Agency is proposing to specify incineration as the treatment standard for lab packs containing these wastes.

The Agency is limiting the applicability of this alternate standard for organics to wastes that have a promulgated or proposed treatment standard based on the performance of incineration, or where incineration only is specified as the treatment standard. Appendix IV to part 268 contains a list of F, K, P, and U wastes and characteristic wastes that meet these criteria. These wastes must be incinerated in accordance with the requirements of part 264 subpart O and

part 265 subpart O. Ignitable and corrosive wastes may be included in the "organic lab pack" provided they comply with the requirements for incompatible wastes in § 264.316(d) or 265.316(d). Reactive wastes are excluded from placement in the organic lab pack. These wastes remain subject to the applicable treatment standards.

The Agency is proposing to include California list PCBs and dioxin-containing waste (F020-F023, F026-F028) in the "organic lab pack" treatability group, but emphasizes that treatment of these wastes requires more stringent performance standards than wastes included in part 268 Appendix IV (i.e., dioxins must achieve a destruction and removal efficiency of 99.9999 percent and PCBs must meet the technical standards in 40 CFR 761.70). Where generators choose to commingle one or both of these wastes with "organic lab pack" waste listed in Appendix IV, the entire lab pack must be incinerated to meet the more stringent standard. For example, a lab pack containing dioxin-containing waste, California list PCBs, and Appendix IV waste must be incinerated according to the technical standards of 40 CFR 761.70 and the applicable requirements of parts 264, 265, and 266 (including all applicable performance standards for dioxin-containing waste).

The Agency recognizes that generators may also dispose of inorganic (metals-bearing) wastes in lab packs. Therefore, the Agency is proposing an alternate treatment standard of stabilization for the following EP toxic metals listed in Appendix V to part 268: barium, cadmium, lead, silver, and trivalent chromium. The Agency believes that stabilization of these metals that are removed from the vials and lab packs can be accomplished using Portland cement in a 20 percent binder-to-waste ratio (by weight). The Agency believes this to be a demonstrated and available technology for these constituents. The Agency would like to allow other stabilizing agents that are "equivalent" to Portland cement to also be used, but has been unable to develop a method of demonstrating equivalence that does not involve review and approval. The Agency is soliciting suggestions for demonstrating such equivalence. The Agency, therefore, is proposing a treatment standard of stabilization (i.e., the wastes must be removed from the containers and stabilized), performed in the manner described above, for lab packs containing only those inorganic constituents specified in Appendix V to part 268 (i.e., "inorganic lab packs").



In cases where non-hazardous wastes are commingled with Appendix V inorganic constituents prior to stabilization, the lab pack is ineligible for the alternate treatment standard due to possible interferences caused by these non-hazardous constituents. The alternate treatment standard for "inorganic lab packs" is not applicable where generators or owners/operators commingle "inorganic lab pack" waste with wastes listed in part 268 Appendix IV, dioxin-containing waste, PCBs, or other wastes.

The Agency is not establishing an alternate treatment standard expressed as a specified technology for lab packs containing the remaining EP toxic metals (i.e., arsenic, selenium, mercury, and hexavalent chromium) because of concern regarding the successful stabilization of these inorganic constituents. Agency data indicate that there is difficulty in stabilizing these constituents, and a TCLP analysis is necessary to verify the results. In cases where the Agency specifies a technology as the treatment standard, however, treatment using the specified technology satisfies the land disposal restriction requirements, and analysis of the treatment residues is not required. Consequently, lab packs containing constituents other than those specified in Appendix V to part 268 must comply with the treatment standards for each of the restricted wastes included in the lab pack.

The Agency's proposed alternate treatment standards for lab packs applies only if the following conditions are met:

(1) The lab pack contains only organic hazardous waste codes, the waste codes are listed in Appendix IV to part 268, and the "organic lab pack" is incinerated according to the provisions in part 264 or 265 subpart O; or

(2) The lab pack contains only inorganic constituents listed in Appendix V to part 268, and the "inorganic lab pack" is stabilized with Portland cement in a 20 percent binder-to-waste ratio by weight. Again, the Agency is aware that equivalent technologies to Portland cement stabilization exist. Therefore, the Agency is soliciting comment on methods for establishing equivalency that are short of establishing a variance procedure.

Lab packs that contain PCBs or dioxin-containing wastes must continue to meet the applicable treatment standards for these wastes. Examples are provided for clarification:

(1) A lab pack that contains only dioxin-containing waste (F020-23 and

F026-28) or a mixture of dioxin-containing waste and organic hazardous waste codes listed in Appendix IV to part 268 must be incinerated according to the provisions in part 264 or 265 subpart O (including the applicable performance standards for dioxin-containing waste).

(2) A lab pack containing California list PCBs and dioxin-containing waste must be incinerated according to the technical standards of 40 CFR 761.70 and the applicable standards of parts 264, 265, and 266 (including the performance standards for dioxin-containing waste).

Generators or owners/operators who dispose of hazardous organic waste according to the provisions in today's proposed rule must also meet the requirements for lab packs specified in §§ 264.316 and 265.316, whichever is applicable. Such persons must also comply with the notification, certification, and recordkeeping requirements of § 268.7. The Agency is continuing to require generators to list each hazardous waste code on the notification form according to the requirements in § 268.7. The Agency is also proposing to require generators to certify that organic and inorganic lab packs destined for treatment as described in today's notice contain only the applicable waste codes or constituents listed in Appendix IV or Appendix V, whichever is applicable. The Agency emphasizes that lab packs containing wastes other than those listed in Appendix IV or Appendix V to part 268, including nonhazardous wastes, are excluded from the alternate treatment standards for lab packs proposed in today's rule.

The Agency is requesting comments on all aspects of its proposed approach for lab packs.

### III.B Capacity Determinations

#### 1. Determination of Alternative Capacity and Effective Dates for Surface Land-Disposed Wastes

##### a. Total Quantity of Land-Disposed Wastes

The capacity analyses for wastes for which EPA is today proposing treatment standards were conducted using the National Survey of Hazardous Waste Treatment, Storage, Disposal, and Recycling Facilities (the TSDR Survey). EPA conducted the TSDR Survey during 1987 and early 1988 to obtain comprehensive data on the nation's capacity for managing hazardous waste and on the volumes of hazardous waste

being disposed of in or on the land (i.e., land disposal). Survey data are part of the record for this proposed rule.

Other major sources of data include the National Survey of Hazardous Waste Generators, conducted by EPA during 1988 and 1989. It includes data on waste generation, waste characterization, and hazardous waste treatment capacity in units exempt from RCRA permitting. These data are used to support this proposal and are part of the record for this proposed rule.

For mixed RCRA/radioactive wastes, EPA has used data supplied by the U.S. Department of Energy. State and State compact low-level radioactive waste survey data were also used, as were data summaries in several overview reports on mixed radioactive waste.

The various land disposal methods used in 1986 and the quantities of waste they handled (excluding mixed radioactive wastes) are presented in Table III.B.1(a). The data indicated that about 5,566 million gallons of the wastes for which standards are proposed today were disposed of in or on the land. This estimate includes less than 1 million gallons of wastes that were stored in surface impoundments and 76 million that were stored in waste piles. These stored wastes will eventually be treated, recycled, or permanently disposed of in other units. To avoid double counting, the volumes of wastes reported as being stored in surface impoundments or waste piles have not been included in the volumes of wastes requiring alternative treatment. Furthermore, this rule proposes prohibitions on the placement of wastes affected by this rule in waste piles or surface impoundments for storage.

EPA estimates that about 11 million gallons of treatment residuals from minimum technology impoundments or from impoundments that were replaced by a tank (e.g., standard cement, steel tanks, or filter presses) will require alternative treatment. EPA assumes that this waste is now being sent off-site for treatment. Consequently, this amount is included as treatment capacity required in today's rule.

In addition, 29 million gallons of wastes were treated in waste piles, 20 million gallons were disposed of in surface impoundments, 246 million gallons were disposed of in land treatment units or landfills, and 5,184 million gallons were injected underground. All of these wastes will require alternative treatment capacity.



TABLE III.B.1.(a) VOLUME OF WASTES BY LAND DISPOSAL METHOD FOR WHICH STANDARDS ARE BEING PROPOSED

(Millions of gallons/year)

Land disposal method	Volume
Storage:	
Waste piles.....	76
Surface impoundments.....	<1
Treatment:	
Waste piles.....	29
Surface impoundments.....	11
Disposal:	
Landfills.....	240
Land treatment.....	6
Surface impoundments.....	20
Underground injected.....	5,184
Total.....	5,566

EPA notes, however, that the TSDR survey may overstate demand for treatment capacity for wastewaters that were treated or disposed in surface impoundments at the time of the survey (1987 and early 1988). This is because such impoundments must now be retrofitted to meet minimum technology requirements, or taken out of service, as a result of RCRA section 3005(j). If the impoundment continues to operate after being retrofitted, it would be a section 3005(j)(11) impoundment if the wastewaters are treated and residues are removed annually. Wastewaters that are not treated or disposed in surface disposal units, or that are treated in section 3005(j)(11) impoundments, do not create any demand for alternative treatment capacity. Thus, the Agency solicits comment on what wastewaters currently disposed of in surface units do require alternative treatment capacity. Based on the above analysis, EPA believes that the volume is low and that, as a result, no capacity variance ordinarily is required for wastewaters destined for surface disposal. (This discussion obviously does not apply for wastewaters destined for deepwell disposal.)

There is one exception to the discussion in the preceding paragraph. This involves wastewaters that exhibit a characteristic of hazardous waste but that are diluted before they reach surface disposal units. As discussed in detail in section III.C below, EPA believes that such dilution normally is impermissible (although the Agency is soliciting comment on the issue). As a result, these wastes may require alternative treatment capacity and the volumes of these wastes would likely not be reflected in the TSDR survey (because the waste would not exhibit a characteristic by the time it reaches a

surface disposal unit). EPA solicits comment on the volumes of wastes potentially affected by this interpretation and whether a national capacity variance would be required for such wastes. (Readers should be aware, however, of potential implications of the California list prohibitions for characteristic wastes receiving a national capacity variance. See the discussion in section III.M below.)

EPA is also requesting comments on the quantity of P and U RCRA waste codes currently being disposed of in deepwells. The TSDR Survey data include some large volume waste streams containing P and U RCRA codes. However, P and U wastes are by definition discarded off-specification products or residues and are usually generated in small volumes. Facilities disposing of these large volume waste streams in deepwells have indicated that small volumes of U and P wastes were mixed with large volumes of other wastes. However, the facilities were not able to provide a specific volume for the deepwell-disposed P and U wastes. Since the facilities generally described the volume of U and P wastes deepwell-disposed as "very small", EPA has assumed for the analysis of alternative treatment capacity that the volume of P and U wastes needing alternative capacity is less than 100,000 gallons; therefore, EPA is not proposing to grant a national variance to P and U wastes that are deepwell-disposed. EPA requests information of the generation and management of P and U wastes, especially on the disposal of P and U wastes in deepwells. EPA also requests comments on the assumption that the volume of P and U wastes being deepwell-disposed are less than 100,000 gallons.

The following sections provide a summary of the capacity analysis for the proposed rule; the detailed analyses are presented in the background document, and all data are included in the public docket.

#### b. Required Alternative Capacity for Surface Land-Disposed Wastes

EPA assessed the requirements resulting from today's proposed rule for alternative treatment capacity for surface land-disposed wastes. Using primarily the TSDR and Generator Survey data, EPA first characterized the volumes of wastes for which treatment standards are being established. Waste streams were characterized on the basis of land disposal method, waste code, physical and chemical form, and waste characterization data. Using this information, EPA placed the wastes in

treatability groups identifying applicable treatment technologies. The waste volume were then summed by treatability group to determine the amount and type of alternative treatment capacity that would be required when owners or operators comply with the land disposal restrictions being proposed today.

Based on this analysis, EPA estimates that today's proposal could affect about 5,556 million gallons of wastes that are landdisposed annually. This total includes wastes that were stored only, that already meet BDAT, or that can be treated on-site. Consequently, only about 5,411 million gallons will require alternative treatment capacity. Of this total, 266 million gallons were surface-disposed (i.e., excluding underground injection), and the remaining 5,184 million gallons were underground injected. (See section 2 for determinations of alternative capacity and effective dates for wastes injected underground.) EPA estimates that treatment of these wastes will generate approximately 48 million gallons of residuals requiring treatment before land disposal.

In addition, EPA realizes that petroleum-refining wastes (K048, K049, K050, K051, and K052 wastes) will increase demand for capacity. The two-year capacity variance that was granted to petroleum refining wastes in the First Third rule will expire on August 8, 1990, three months after the promulgation of the Third Third rule. The best demonstrated available technology (BDAT) standard for these wastes is based on sludge incineration followed by stabilization of the ash, or on solvent extraction and stabilization of the residuals. EPA anticipates that available capacity for these technologies may be insufficient for handling the total volume of K048-K052 land-disposed wastes. Thus, EPA is requesting comments on current generation and management practices, industries' plans for treating and disposing of K048-K052 wastes, and the quantities of K048-K052 wastes disposed of based on current and planned management practices. EPA will analyze this information to estimate the impact of K048-K052 wastes on available capacity after August 8, 1990.

The volumes of surface-disposed wastes that require alternative commercial treatment and/or recycling capacity are presented in Table III.B.1.(b). This table does not include wastes that can be treated on-site by the generator, nor does it contain volumes of mixed radioactive wastes.

As explained in section III.A of this preamble, EPA is proposing treatment



standards expressed either as concentration limits based on the performance of the BDAT, or as a specific treatment technology. When a treatment standard is expressed as a concentration limit, a specific treatment method is not required to achieve that concentration level. However, the BDAT (and technologies that EPA finds perform comparably), as discussed in section III.A., were used as the basis for determining available capacity. When the treatment standard is expressed as a specific technology (rather than a concentration limit), that technology must be used.

Table III.B.1.(b) REQUIRED ALTERNATIVE COMMERCIAL TREATMENT/RECYCLING CAPACITY FOR SURFACE-DISPOSED WASTES

[Million gallons/year]

Waste code	Capacity required for surface-disposed wastes
<b>First Third Code</b>	
F006.....	5.1
F019.....	4.9
K004.....	0.1
K017.....	<0.1
K021.....	<0.1
K031.....	0.6
K035.....	<0.1
K071.....	5.9
K073.....	<0.1
K084.....	0.2
K085.....	<0.1
K106.....	0.5
P001.....	<0.1
P004.....	<0.1
P005.....	<0.1
P010.....	<0.1
P011.....	<0.1
P012.....	<0.1
P015.....	<0.1
P018.....	<0.1
P020.....	<0.1
P037.....	<0.1
P048.....	<0.1
P050.....	<0.1
P058.....	<0.1
P059.....	<0.1
P069.....	<0.1
P070.....	<0.1
P081.....	<0.1
P087.....	<0.1
P092.....	<0.1
P105.....	<0.1
P108.....	<0.1
P115.....	<0.1
P120.....	<0.1
P123.....	<0.1
U007.....	<0.1
U009.....	<0.1
U010.....	<0.1
U012.....	<0.1
U019.....	<0.1
U022.....	<0.1
U029.....	<0.1
U031.....	<0.1
U036.....	<0.1
U037.....	<0.1
U043.....	<0.1
U044.....	<0.1
U050.....	<0.1

Table III.B.1.(b) REQUIRED ALTERNATIVE COMMERCIAL TREATMENT/RECYCLING CAPACITY FOR SURFACE-DISPOSED WASTES—Continued

[Million gallons/year]

Waste code	Capacity required for surface-disposed wastes
U051.....	0.1
U061.....	<0.1
U066.....	<0.1
U067.....	<0.1
U077.....	<0.1
U078.....	<0.1
U103.....	<0.1
U105.....	<0.1
U108.....	<0.1
U122.....	<0.1
U129.....	<0.1
U133.....	<0.1
U134.....	<0.1
U151.....	<0.1
U154.....	<0.1
U158.....	0.3
U159.....	<0.1
U177.....	<0.1
U180.....	<0.1
U185.....	<0.1
U188.....	0.3
U192.....	<0.1
U209.....	<0.1
U210.....	<0.1
U211.....	<0.1
U219.....	<0.1
U220.....	0.1
U226.....	<0.1
U227.....	2.7
U228.....	<0.1
U237.....	<0.1
U238.....	<0.1
U248.....	<0.1
U249.....	<0.1
<b>Second Third Code</b>	
F024.....	<0.1
K105.....	<0.1
P002.....	<0.1
P003.....	<0.1
P014.....	<0.1
P066.....	<0.1
P067.....	<0.1
U002.....	<0.1
U003.....	<0.1
U005.....	<0.1
U008.....	<0.1
U014.....	<0.1
U021.....	<0.1
U032.....	<0.1
U047.....	<0.1
U057.....	<0.1
U070.....	<0.1
U073.....	<0.1
U080.....	2.7
U083.....	<0.1
U092.....	<0.1
U093.....	<0.1
U101.....	<0.1
U106.....	<0.1
U109.....	<0.1
U114.....	<0.1
U116.....	<0.1
U119.....	<0.1
U127.....	<0.1
U131.....	0.1
U140.....	<0.1
U142.....	<0.1
U144.....	<0.1
U146.....	<0.1
U147.....	<0.1

Table III.B.1.(b) REQUIRED ALTERNATIVE COMMERCIAL TREATMENT/RECYCLING CAPACITY FOR SURFACE-DISPOSED WASTES—Continued

[Million gallons/year]

Waste code	Capacity required for surface-disposed wastes
U149.....	<0.1
U161.....	<0.1
U162.....	<0.1
U165.....	<0.1
U169.....	<0.1
U170.....	<0.1
U196.....	<0.1
U208.....	<0.1
U213.....	<0.1
U214.....	<0.1
U217.....	<0.1
U218.....	<0.1
U239.....	0.2
U244.....	<0.1
<b>Third Third Code</b>	
D001.....	19.7
D002.....	25.6
D003.....	9.2
D004.....	12.8
D005.....	16.4
D006.....	16.3
D007.....	117.0
D008.....	73.0
D009.....	4.0
D010.....	2.0
D011.....	2.5
D012.....	0.5
D013.....	0.4
D014.....	1.9
D015.....	<0.1
D016.....	0.2
D017.....	0.4
K002.....	0.2
K003.....	0.2
K005.....	0.1
K006.....	0.2
K069.....	<0.1
K083.....	<0.1
P006.....	<0.1
P022.....	<0.1
P024.....	<0.1
P028.....	<0.1
P031.....	<0.1
P047.....	<0.1
P051.....	<0.1
P064.....	<0.1
P073.....	<0.1
P075.....	<0.1
P077.....	<0.1
P088.....	<0.1
P093.....	<0.1
P119.....	<0.1
U001.....	<0.1
U004.....	<0.1
U006.....	<0.1
U017.....	<0.1
U030.....	<0.1
U039.....	<0.1
U048.....	<0.1
U052.....	<0.1
U055.....	0.2
U056.....	<0.1
U071.....	<0.1
U072.....	0.2
U075.....	<0.1
U076.....	<0.1
U079.....	<0.1
U081.....	<0.1
U082.....	<0.1
U112.....	<0.1



Table III.B.1.(b) REQUIRED ALTERNATIVE COMMERCIAL TREATMENT/RECYCLING CAPACITY FOR SURFACE-DISPOSED WASTES—Continued

[Million gallons/year]

Waste code	Capacity required for surface-disposed wastes
U117	<0.1
U118	<0.1
U120	<0.1
U121	<0.1
U123	<0.1
U125	<0.1
U126	<0.1
U148	<0.1
U156	<0.1
U167	<0.1
U181	<0.1
U182	<0.1
U201	<0.1
U202	<0.1
U204	<0.1
U225	<0.1
U234	<0.1
U240	<0.1
U247	<0.1
Leachate	34.5

The TSDR Survey contains data on specific treatment processes at facilities. The data enable EPA to identify specific BDAT treatment (and treatment that EPA has determined performs comparably) in its assessment of both off-site and on site capacity. Therefore, EPA believes that the capacity identified as available for a specific treatment technology will be capable of meeting the BDAT standard, which has been developed such that a well-designed and well-operated BDAT treatment process should be capable of meeting it.

EPA is concerned that there may be insufficient incineration capacity to treat the sludge and solid hazardous wastes that must be incinerated to meet BDAT standards. To establish criteria for differentiating between a liquid and a solid waste as it pertains to the adequacy of existing incineration capacity, EPA examined the way in which these materials are fed into

combustion systems. Solids are typically fed in a containerized form or through an auger system. Liquids are atomized and fed through burners or nozzles (sometimes referred to as feed guns). Some facilities burn sludges that are not handled as either solids or liquids in the conventional feed mechanisms mentioned above. Sludges are typically fed to an incinerator by pumping them through a lance (i.e., essentially an open-ended pipe).

EPA considers sludges to be solids in the context of the adequacy of existing incineration capacity. Sludges are pumpable but generally not atomizable. As such, the key to differentiating between solid and liquid feed materials is whether or not the feed material can be atomized.

The Agency believes that viscosity of the waste can be used to determine if it can be atomized. Wastes with a viscosity of greater than 1500 to 2500 centipoise are generally considered too viscous to be atomized. Given that a waste with high viscosity can be blended with a waste with low viscosity so that the mixture can be atomized, the Agency is proposing a viscosity representing the high end of the range—2500 centipoise—to identify “non-liquid” waste (i.e., wastes that cannot be atomized).

The Agency considered other criteria for distinguishing between liquid and solid wastes with respect to how wastes are fed into incinerators. Criteria such as solids content, particle size, and salt content of the waste were considered but ultimately rejected. Although the Agency recognizes that these waste parameters are important factors in incinerator design and operation, we believe that viscosity alone is an adequate parameter for the purpose at hand. EPA requests comments on this approach for differentiating between a liquid and a solid waste as it pertains to the adequacy of existing incineration capacity.

With respect to variances based on lack of solids incineration capacity, EPA

is only proposing to grant national capacity variances for non-atomizable solids (as defined above). Thus, for this purpose, EPA is proposing to further subcategorize the wastewater and nonwastewater treatability groups that are used as the basis for treatment standards. Only the nonatomizable nonwastewaters would receive the variance. This is because (for most waste codes) there is ample treatment capacity in liquid injection furnaces, and in boilers and industrial furnaces, for atomizable nonwastewaters. EPA realizes that this approach is different from and more sophisticated than that utilized in previous rulemakings. However, there is clearly no reason to grant national capacity variances when EPA can define a reasonable subcategory for prohibited wastes for which there exists treatment capacity.

#### c. Capacity Currently Available and Effective Dates

Table III.B.1.(c) presents an estimate of the volumes of wastes that will require alternative treatment before land disposal to comply with the standards proposed today. The amount of capacity that is available at commercial facilities in each case is also presented. Available capacity is equal to the specific treatment system's maximum capacity minus the amount used in 1986; available capacity was calculated using the TSDR Survey data. In addition, the available capacity presented in this section was adjusted to account for wastes previously restricted from land disposal by subtracting the capacity required for land-disposed solvent wastes, First Third wastes, and Second Third wastes.

In general, Table III.B.1.(c) indicates that there is inadequate capacity for certain technologies: combustion of sludges and solids, mercury retorting, thermal recovery, vitrification, and wet-air oxidation. EPA requests information on available treatment capacity for these specific treatments.

TABLE III.B.1.(c) REQUIRED ALTERNATIVE COMMERCIAL TREATMENT (INCLUDING RECYCLING) CAPACITY FOR SURFACE LAND-DISPOSED WASTES

[Millions of gallons/yr.]

Technology	Available capacity	Required capacity	Variance
Alkaline Chlorination	2	<1.0	No.
Alkaline Chlorination and by Chemical Precipitation	11	4.6	No.
Biological and Carbon Adsorption	6	1.0	No.
Carbon Adsorption and Chemical Precipitation	41	<1.0	No.
Chemical Oxidation and Chemical Precipitation	29	6.9	No.
Chemical Precipitation	364	25.5	No.
Chromium Reduction and Chemical Precipitation	79	66.5	No.
Combustion of Atomizable Liquids	249	16.3	No.
Combustion of Sludge/Solids	4	52.7	Yes.



TABLE III.B.1.(c) REQUIRED ALTERNATIVE COMMERCIAL TREATMENT (INCLUDING RECYCLING) CAPACITY FOR SURFACE LAND-DISPOSED WASTES—Continued

[Millions of gallons/yr.]

Technology	Available capacity	Required capacity	Variance
Mercury Retorting.....	<1.0	8.8	Yes.
Neutralization.....	36	22.0	No.
Secondary Smelting.....	37	1.7	No.
Stabilization.....	479	134.5	No.
Thermal Recovery.....	0	<1.0	Yes.
Treatment of Reactives and Chromium Reduction and Chemical Precipitation.....	2	1.9	No.
Vitrification.....	0	2.50	Yes.
Wet-Air Oxidation.....	<1.0	6.1	Yes.
Wet-Air Oxidation and Carbon Adsorption and Chemical Precipitation.....	<1.0	<1.0	No.
Wet-Air Oxidation and Chemical Precipitation.....	<1.0	<1.0	No.
Wet-Air Oxidation and Chromium Reduction.....	<1.0	<1.0	No.

For combustion of sludges and solids, there is not available capacity for D001 sludges and solids or for leachate sludges and solids. However, there is adequate capacity for all other wastes needing combustion of sludges and solids. For mercury retorting, there is not adequate capacity for D009, K071, K106, and U151. However there is adequate capacity for other wastes needing this technology. Also, for wet-air oxidation, there is not enough capacity for F019,

but there is adequate capacity for other wastes needing this technology.

It is important to note that some of the wastes, because of their actual physical form, cannot be treated to meet standards simply by using the technology identified as BDAT. These wastes must be treated through several steps, called a treatment train. EPA assumes that the resultant residuals will also need to be treated using alternative technologies before land disposal; therefore, the total volumes reported

were assigned to appropriate technologies.

The following sections discuss the results of the individual capacity analyses and effective dates for each waste code included in today's proposal. Table III.B.1.(d) summarizes all the surface-disposed wastes for which EPA is proposing to grant a two-year variance. The detailed basis for the Agency's conclusions, however, are set forth in the capacity background document for this proposal.

TABLE III.B.1.(d) SUMMARY OF PROPOSED TWO-YEAR NATIONAL CAPACITY VARIANCE FOR SURFACE LAND-DISPOSED WASTES

Required alternative treatment technology	Waste code	Physical form
Combustion of Sludge/Solids (i.e., non-atomizable wastes).....	<sup>1</sup> D001.....	Nonwastewater.
	<sup>2</sup> Leachate.....	Nonwastewater.
Mercury Retorting.....	D009.....	Nonwastewater.
	K071.....	Nonwastewater.
	K106.....	Nonwastewater.
	P065.....	Nonwastewater.
	P092.....	Nonwastewater.
Thermal Recovery.....	U151.....	Nonwastewater.
	<sup>3</sup> D006.....	Nonwastewater.
	P015.....	Nonwastewater.
	P073.....	Nonwastewater.
	P087.....	Nonwastewater.
Vitrification.....	D004.....	Nonwastewater.
	D010.....	Nonwastewater.
	K031.....	Nonwastewater.
	K084.....	Nonwastewater.
	K101.....	Nonwastewater.
	K102.....	Nonwastewater.
	P010.....	Nonwastewater.
	P011.....	Nonwastewater.
	P012.....	Nonwastewater.
	P036.....	Nonwastewater.
	P038.....	Nonwastewater.
	P103.....	Nonwastewater.
	P114.....	Nonwastewater.
	U136.....	Nonwastewater.
	U204.....	Nonwastewater.
Wet-Air Oxidation.....	U205.....	Nonwastewater.
	F019.....	Nonwastewater.

<sup>1</sup> D001 (Ignitables Liquids Mixed with Sludges and Solids).

<sup>2</sup> Multi-source Leachate.

<sup>3</sup> D006 (Cadmium Batteries).

(1) Halogenated organic wastes. This treatability group includes halogenated aliphatics, halogenated pesticides and

chlorobenzenes, halogenated phenolics, brominated organics, and miscellaneous halogenated organics. These treatability

groups will require the following technologies: incineration; incineration and stabilization; stabilization; and wet-



air oxidation or chemical oxidation and carbon adsorption. Sufficient capacity exists for treatment of the halogenated organic wastes by these technologies; therefore, EPA is not proposing to grant a national capacity variance for these wastes. (These wastes needing alternative incineration capacity do not need a variance, because there is adequate capacity for all atomizable liquids as well as adequate capacity for the small quantities for sludges and solids in this category.) The following sections present the waste codes and the proposed treatment standards for each of the halogenated organic waste groups.

(a) Halogenated Aliphatics

- K017—Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin
- K021—Aqueous spent antimony catalyst from fluoromethane production
- K028—1,1,1-Trichloroethane production wastes
- K029—Waste from the product steam stripper in the production of 1,1,1-trichloroethane
- K073—Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production
- K095—Distillation bottoms from the production of 1,1,1 trichloroethane
- K096—Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane
- U044—Chloroform
- U074—1,4-Dichloro-2-butene
- U076—1,1-Dichloroethane
- U077—1,2-Dichloroethane
- U078—1,2-Dichloroethylene
- U079—1,2-Dichloroethylene
- U080—Methylene chloride
- U083—1,2-Dichloropropene
- U084—1,3-Dichloropropene
- U131—Hexachloroethane
- U184—Pentachloroethane
- U208—1,1,1,2-Tetrachloroethane
- U209—1,1,2,2-Tetrachloroethane
- U210—Tetrachloroethylene
- U211—Carbon tetrachloride
- U226—1,1,1-Trichloroethane
- U227—1,1,2-Trichloroethane
- U228—Trichloroethylene
- U243—Hexachloropropene

For the halogenated aliphatics, incineration is the BDAT for both wastewater and nonwastewater forms of K017, K073, K021 (organics), U044, U074, U076, U077, U078, U079, U080, U083, U084, U131, U184, U208, U209, U210, U211, U226, U227, U228, and U243. K021 (inorganics) nonwastewaters with a high level of metal constituents also require incineration and stabilization of metal constituents as a BDAT.

Treatment standards were promulgated for the wastewater and nonwastewater forms of K028 in the Second Third rule; however, today EPA is proposing treatment standards for the metal constituents in K028 nonwastewaters. The treatment standards for these wastes are based on stabilization. The nonwastewater forms of K029, K095, and K096 were promulgated in the Second Third rule. Today, EPA is proposing concentration standards for organics in K029, K095, and K096 wastewaters based on incineration. Sufficient capacity exists for treatment of the halogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes. (These wastes needing alternative incineration capacity do not need a variance, because there is adequate capacity for all atomizable liquids as well as adequate capacity for the small quantities for sludges and solids in this category.)

(b) Halogenated Pesticides and Chlorobenzenes

- D012—Characteristic of EP Toxic for Endrin
- D013—Characteristic of EP Toxic for Lindane
- D014—Characteristic of EP Toxic for Methoxychlor
- D015—Characteristic of EP Toxic for Toxaphene
- D016—Characteristic of EP Toxic for 2,4-D
- D017—Characteristic of EP Toxic for 2,4,5-TP
- K032—Wastewater treatment sludge from the production of chlordane
- K033—Wastewater treatment scrubber water from the chlorination of cyclopentadiene in the production of chlordane
- K034—Filter solids from filtration of hexachlorocyclopentadiene in the production of chlordane
- K041—Wastewater treatment sludge from the production of toxaphene
- K042—Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T
- K085—Distillation of fractionation column bottoms from the production of chlorobenzenes
- K097—Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane
- K098—Untreated process wastewater from the production of toxaphene
- K105—Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes
- P004—Aldrin
- P037—Dieldrin
- P050—Endosulfan

- P051—Endrin
- P059—Heptachlor
- P060—Isodrin
- P123—Toxaphene
- U036—Chlordane, technical
- U037—Chlorobenzene
- U038—Chlorobenzilate
- U060—DDD
- U061—DDT
- U070—1,2-Dichlorobenzene
- U071—1,3-Dichlorobenzene
- U072—1,4-Dichlorobenzene
- U127—Hexachlorobenzene
- U128—Hexachlorobutadiene
- U129—Lindane
- U130—Hexachlorocyclopentadiene
- U132—Hexachlorophene
- U142—Kepone
- U183—Pentachlorobenzene
- U185—Pentachloronitrobenzene
- U207—1,2,4,5-Tetrachlorobenzene
- U240—2,4-D salts and esters
- U247—Methoxychlor

For the following halogenated pesticides and chlorobenzenes, the BDAT for wastewaters and nonwastewaters is incineration: D012, D013, D014, D015, D016, D017, K032, K033, K034, K041, K042, K085, K097, K098, K105, P004, P037, P050, P051, P059, P060, P123, U036, U037, U038, U060, U061, U070, U071, U072, U127, U128, U129, U130, U132, U142, U183, U185, U207, and U247.

For U240, the BDAT for nonwastewaters is incineration as a method; for wastewaters the BDAT is wet-air oxidation or chemical oxidation and carbon adsorption or incineration as methods of treatment. Sufficient capacity exists for treatment of the halogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(c) Halogenated Phenolics

- U039—p-Chloro-m-cresol
  - U048—2-Chlorophenol
  - U081—2,4-Dichlorophenol
  - U082—2,6-Dichlorophenol
- For U039, U048, U081, and U082, the BDAT for wastewaters and nonwastewaters is incineration. Sufficient capacity exists for treatment of the halogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(d) Brominated Organics

- P017—Bromoacetone
  - U029—Methyl Bromide
  - U030—4-Bromophenyl phenyl ether
  - U066—1,2-Dibromo-3-chloropropane
  - U067—Ethylene dibromide (EDB)
  - U068—Dibromomethane
  - U225—Bromoform
- For U029, U030, U066, U067, U068, and U225, incineration is the BDAT for



nonwastewaters and wastewaters. For P017 nonwastewaters, the BDAT is incineration as a method of treatment. For P017 wastewaters, wet-air oxidation, biodegradation, chemical oxidation, or incineration are the proposed methods of treatment. Sufficient capacity exists for treatment of the halogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(e) Miscellaneous Halogenated Organics

P016—bis-(Chloromethyl) ether  
 P023—Chloroacetaldehyde  
 P024—p-Chloroaniline  
 P026—1-(o-Chlorophenyl) thiourea  
 P027—3-Chloropropionitrile  
 P028—Benzyl chloride  
 P057—Fluoracetamide  
 P058—Fluoroacetic acid sodium salt  
 P095—Phosgene  
 P118—Trichloromethanethiol  
 U006—Acetyl chloride  
 U017—Benzal chloride  
 U020—Benzenesulfonyl chloride  
 U024—bis-(2-Chloroethoxy) methane  
 U025—Dichloroethyl ether  
 U026—Chloronaphazine  
 U027—bis-(2-Chloroisopropyl) ether  
 U033—Carbonyl fluoride  
 U034—Trichloroacetaldehyde  
 U041—n-Chloro-2,3-epoxypropane  
 U042—2-Chloroethyl vinyl ether  
 U043—Vinyl chloride  
 U045—Methyl chloride  
 U046—Chloromethyl methyl ether  
 U047—2-Chloronaphthalene  
 U049—4-Chloro-o-toluidine hydrochloride  
 U062—Diallate  
 U073—3,3'-Dichlorobenzidine  
 U075—Dichlorodifluoromethane  
 U097—Dimethylcarbamoyl chloride  
 U121—Trichloromonofluoromethane  
 U138—Iodomethane  
 U156—Methyl chlorocarbonate  
 U158—4,4-Methylene-bis-(2-chloroaniline)  
 U192—Pronamide  
 U222—o-Toluidine hydrochloride

For P016, P023, P026, P027, P028, P057, P058, P095, P118, U006, U017, U020, U026, U033, U034, U041, U042, U046, U049, U062, U097, U156, and U222, EPA is proposing incineration as a method of treatment for nonwastewaters and incineration, wet-air oxidation and carbon adsorption, or chemical oxidation and carbon adsorption as methods of treatment for wastewaters. For wastewater and nonwastewater forms of P024, U024, U025, U027, U043, U045, U047, U073, U075, U121, U138, U158, and U192, EPA is proposing treatment standards based on incineration.

In addition to the methods of treatment proposed for U017, EPA is proposing a treatment standard based on incineration. EPA is soliciting comments concerning the options for U017 and will make a decision at a later date. For the capacity analysis, the alternative treatment technology for U017 is incineration. Sufficient capacity exists for treatment of the halogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(2) *Additional organic wastes.* This group includes aromatic and other hydrocarbons, polynuclear aromatic hydrocarbons, phenolics, oxygenated hydrocarbons and heterocyclics, organo-nitrogen compounds, organo-sulfur compounds, and pharmaceuticals.

In today's proposed rule, EPA is proposing incineration as BDAT for all of the nonhalogenated organics presented below. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(a) Aromatics and Other Hydrocarbons

U019—Benzene  
 U055—Cumene  
 U056—Cyclohexane  
 U186—1,3-Pentadiene  
 U220—Toluene (methyl benzene)  
 U239—Xylenes (dimethyl benzene)

For U019, U220, and U239 wastes, EPA is proposing to transfer standards based on incineration for wastewaters and nonwastewaters. For U055, U056, and U186 nonwastewaters, EPA is proposing incineration as a method of treatment. For U055, U056, and U186 wastewaters, EPA is proposing wet-air oxidation or chemical oxidation or biological degradation followed by carbon adsorption, or incineration as methods of treatment for wastewaters. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(b) Polynuclear Aromatic Hydrocarbons

U005—2-Acetylaminofluorene  
 U016—Benz(c)acridine  
 U018—Benz(a)anthracene  
 U022—Benzo(a)pyrene  
 U050—Chrysene  
 U051—Creosote  
 U063—Dibenzo(a,h)anthracene  
 U064—1,2,7,8-Dibenzopyrene  
 U094—7,12-Dimethyl benz(a)anthracene  
 U120—Fluoranthene  
 U137—Indeno(1,2,3-d,d')pyrene  
 U157—3-Methylchloanthrene

U165—Naphthalene

For U005, U018, U022, U050, U063, U120, U137, U157, and U165 wastewaters and nonwastewaters, EPA is proposing incineration as a BDAT. For U016, U064, and U094 wastes, EPA is proposing to require the use of incineration as a method of treatment for nonwastewaters and wet-air oxidation and carbon adsorption or chemical oxidation and carbon adsorption, or biological degradation and carbon adsorption, or incineration as methods of treatment for wastewaters. For the organics in U051 wastewaters and nonwastewaters, the concentration standards are based on incineration. EPA is also proposing treatment standards for lead in U051. These standards are based on stabilization as the BDAT for nonwastewaters and chemical precipitation as the BDAT for wastewaters. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(c) Phenolics

P020—2-sec-Butyl-4,6-dinitrophenol (Dinoseb)  
 P034—2-cyclohexyl-4,6-dinitrophenol  
 P047—4,6-dinitrocresol and salts  
 P048—2,4-dinitrophenol  
 U052—Cresols  
 U101—2,4-Dimethyl phenol  
 U170—4-Nitrophenol  
 U188—Phenol  
 U201—Resorcinol

For P020, P048, U052, U101, U170, U188, and U201, EPA is proposing treatment standards based on incineration. For P034 and P047, EPA is proposing to require the use of incineration as a method of treatment for nonwastewaters and wet-air oxidation and carbon adsorption, chemical oxidation and carbon adsorption, or biodegradation and carbon adsorption, or incineration as methods of treatment for wastewaters. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(d) Oxygenated Hydrocarbons and Heterocyclics

P001—Warfarin (>3%)  
 P003—Acrolein  
 P005—Allyl alcohol  
 P088—Endothall  
 P102—Propargyl alcohol  
 U001—Acetaldehyde  
 U002—Acetone  
 U004—Acetophenone  
 U008—Acrylic acid



U031—n-Butanol  
 U053—Crotonaldehyde  
 U057—Cyclohexanone  
 U085—1,2,3,4-Diepoxybutane  
 U108—1,4-Dioxane  
 U112—Ethyl acetate  
 U113—Ethyl acrylate  
 U117—Ethyl ether  
 U118—Ethyl methacrylate  
 U122—Formaldehyde  
 U123—Formic acid  
 U124—Furan  
 U125—Furfural  
 U126—Glycidaldehyde  
 U140—Isobutanol  
 U147—Maleic anhydride  
 U154—Methanol  
 U159—Methyl ethyl ketone  
 U161—Methyl isobutyl ketone  
 U162—Methyl methacrylate  
 U166—1,4-Naphthoquinone  
 U182—Paraldehyde  
 U197—p-Benzquinone  
 U213—Tetrahydrofuran  
 U248—Warfarin (<3%)

For U002, U004, U031, U057, U108, U112, U117, U118, U140, U154, U161, U162, U166, and U197 wastes, EPA is proposing treatment standards based on the performance of incineration or fuel substitution for nonwastewaters and incineration for wastewaters. For P001, P003, P005, P088, P102, U001, U008, U053, U085, U113, U122, U123, U124, U125, U126, U147, U154, U182, U213, and U248 wastes, EPA is proposing to establish incineration or fuel substitution as a method of treatment for nonwastewaters (unlike other wastes in the additional organic wastes category, this proposed standard does not preclude the use of fuel substitution), and wet-air oxidation, chemical oxidation, or biodegradation and carbon adsorption, or incineration as methods of treatment for all wastewaters except P003. Treatment standards for P003 wastewaters are based on incineration. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes. (These wastes needing alternative wet-air oxidation and incineration capacities do not need a variance, because there is adequate capacity for the small quantity of wastes in this category.)

(e) Organo-Nitrogen Compounds

(i) Nitrogen Heterocyclic Compounds

P008—4-Aminopyridine  
 P018—Brucine  
 P054—Aziridine  
 P067—2-Methylaziridine  
 U011—Amitrole  
 U148—Maleic Anhydride  
 U179—N-Nitrosopiperidine

U180—N-Nitrosopyrrolidine

U191—2-Picoline

U196—Pyridine

(ii) Amine and Amide Compounds

P046—alpha, alpha-

Dimethylphenethylamine

P064—Isocyanic acid, ethyl ester

U007—Acrylamide

U012—Aniline

U092—Dimethylamine

U110—Dipropylamine

U167—1-Naphthylamine

U168—2-Naphthylamine

U194—n-Propylamine

U238—Ethyl carbamate

(iii) Aminated Diphenyls and Biphenyls

U014—Auramine

U021—Benzidine

U091—3,3-Dimethoxybenzidine

U093—p-Dimethylaminoazobenzidine

U095—3,3'-Dimethylbenzidine

U236—Trypan Blue

(iv) Nitriles

P069—Methylacetonitrile

P101—Propanenitrile

U003—Acetonitrile

U009—Acrylonitrile

U149—Malononitrile

U152—Methacrylonitrile

(v) Nitro Compounds

P077—p-Nitroaniline

U105—2,4-Dinitrotoluene

U106—2,6-Dinitrotoluene

U169—Nitrobenzene

U171—2-Nitropropane

U181—5-Nitro-o-toluidine

U234—sym-Trinitrobenzene

(vi) Nitroso Compounds

P082—N-Nitrosodimethylamine

P084—N-Nitrosomethylvinylamine

U111—Di-n-propylnitrosoamine

U172—N-Nitroso-di-n-butylamine

U173—N-Nitroso-di-n-ethanolamine

U174—N-Nitrosodiethylamine

U176—N-Nitroso-N-ethylurea

U177—N-Nitroso-N-methylurea

U178—N-Nitroso-N-methylurethane

For P077, P082, P101, U003, U009, U012, U093, U105, U106, U111, U152, U167, U168, U169, U172, U174, U179, U180, U181, and U196 wastes, EPA is proposing BDAT treatment standards based on the performance of incineration. For P008, P018, P046, P054, P064, P067, P069, P084, U007, U011, U014, U021, U091, U092, U095, U110, U148, U149, U171, U173, U176, U177, U178, U191, U194, U234, U236, and U238 wastes, EPA is proposing to establish incineration as a method of treatment for nonwastewaters; for wastewaters, the proposed BDATs are: wet-air oxidation and carbon adsorption, chemical oxidation and carbon adsorption, biodegradation and carbon adsorption, or incineration as methods of treatment. Sufficient capacity exists

for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(f) Organo-Sulfur Compounds

P002—1-Acetyl 2-thiourea

P014—Benzene thiol (Thiophenol)

P022—Carbon disulfide

P045—Thiofanox

P049—2,4-Dithiobiuret

P066—Methomyl

P070—Aldicarb

P072—1-Naphthyl-2-thiourea (Bantu)

P093—N-Phenylthiourea

P116—Thiosemicarbazide

U114—Ethylene bis-dithiocarbamic acid

U116—Ethylene thiourea

U119—Ethyl methane sulfonate

U153—Methane thiol

U193—1,3-Propane sulfone

U218—Thioacetamide

U219—Thiourea

U244—Thiram

For all of these organo-sulfur wastes, EPA is proposing to establish incineration as a method of treatment for nonwastewaters and wet-air oxidation and carbon adsorption, chemical oxidation and carbon adsorption, biodegradation and carbon adsorption, or incineration as methods of treatment for wastewaters. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes. (These wastes needing alternative wet-air oxidation and incineration capacities do not need a variance, because there is adequate capacity for the small quantity of wastes in this category.)

(g) Pharmaceuticals

P007—Muscimol (5-Aminoethyl 3-isoxazolol)

P042—Epinephrine

P075—Nicotine and salts

P108—Strychnine and salts

U010—Mitomycin C

U015—Azaserine

U035—Chlorambucil

U059—Daunomycin

U089—Diethyl stilbestrol

U090—Dihydrosafrole

U141—Isosafrole

U143—Lasiocarpine

U150—Melphalan

U155—Methapyrilene

U163—N-Methyl N-nitro N-nitroguanidine

U164—Methylthiouracil

U187—Phenacetin

U200—Reserpine

U202—Saccharin and salts

U203—Safrole

U206—Streptozotocin

U237—Uracil mustard



For all of these pharmaceutical wastes except U141, U155, U187, and U203, EPA is proposing to establish incineration as a method of treatment for nonwastewaters and wet-air oxidation and carbon adsorption, chemical oxidation and carbon adsorption, or biodegradation and carbon adsorption, or incineration as methods of treatment for wastewaters. For U141, U155, U187, and U203, EPA is proposing BDAT treatment standards based on the performance of incineration for wastewaters and nonwastewaters. Sufficient capacity exists for treatment of these nonhalogenated organic wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(3) Ignitable, corrosive, and reactive characteristic wastes, and reactive U and P wastes. This group includes ignitable characteristic wastes (D001), corrosive characteristic wastes (D002), reactive characteristic wastes (D003), and potentially reactive P and U wastes.

(a) *Ignitable Characteristic Wastes (D001)*. EPA has identified four treatability groups for D001 wastes: ignitable liquids, ignitable reactives, oxidizers, and ignitable gases. For ignitable liquids, EPA is proposing incineration, fuel substitution, or recovery as a method of treatment, rather than proposing numerical standards. EPA believes that the majority of these wastes are already being either incinerated or reused as fuel or recovered for reuse. Sufficient treatment capacity exists for the D001 ignitable liquid wastes destined for surface disposal; therefore, no capacity variance is being proposed for them.

EPA notes, that there may be inadequate treatment capacity for these ignitable liquid wastes if fuel substitution capacity were not considered. Since it makes environmental sense for ignitable wastes to be used as fuel substitutes, since final boiler and furnace RCRA air emission permit standards should be in place relatively soon (standards were re-proposed on October 26, 1989), since ignitable wastes are likely to be destroyed in such units, and because the Agency believes it is important not to grant a national capacity variance for this waste treatability group (during which time the wastes would most likely be used as fuel substitutes anyway, or be land-disposed), EPA believes it preferable to include fuel substitution as a method of treatment for these wastes.

However, significant volumes of D001 sludges and solids are being surface-disposed. These wastes would require incineration or reuse as fuel. Presently, EPA believes that adequate capacity

does not exist for them. Therefore, EPA is proposing to grant a two-year national capacity variance only to the subcategory of D001 sludges and solids (which is defined as having a viscosity of greater than 2,500 centipoise) requiring incineration or reuse as fuel. Planned capacity could possibly become available by May 1990 for D001 ignitable wastes. If planned facilities become operational by May 1990, there may be adequate capacity for these wastes and a variance would not be needed. EPA requests comments on the need for and availability capacity for incineration of non-atomizable sludges and solids as well as comments on the use of a subcategory of D001 waste based on viscosity as the basis for granting a national capacity variance.

EPA is proposing deactivation as a method of treatment for D001 ignitable reactives and oxidizers. EPA has determined that sufficient capacity exists for these wastes; therefore, EPA is not proposing to grant a national capacity variance for them.

For D001 ignitable gases, EPA is proposing recovery or incineration of vented ignitable gases as a method of treatment. EPA believes that adequate capacity exists for this waste form; therefore, EPA is not proposing a national capacity variance for this waste.

(b) *Corrosive Characteristic Wastes (D002)*. EPA has identified three treatability groups for D002 wastes: acids, alkalines, and other corrosives. For the acid and alkaline subcategories, EPA is proposing neutralization as a method of treatment. These wastes must be treated with chemicals and neutralized into an insoluble salt. However, EPA is also considering the use of recovery of acids for these wastes, and EPA requests comments on the current use of recovery of acids. By definition, wastes in these subcategories are liquids; therefore, based on the minimum technology requirements for surface impoundments and the ban on liquids in landfills, EPA believes that few, if any, of these wastes are surface-disposed. EPA believes sufficient neutralization capacity does exist for acid and alkaline D002 wastes that are surface-disposed; therefore, EPA is not proposing a national capacity variance for them.

For the D002 other corrosives category, EPA is proposing deactivation as a method of treatment. These wastes can be deactivated using chemical reagents. In addition, EPA believes that these wastes are generated sporadically and in low volumes. Therefore, it is not proposing to grant a national capacity variance for them.

(c) *Reactive Characteristic Wastes (D003)*. For D003 wastes, EPA has identified five treatability groups: reactive cyanides, explosives, water reactives, reactive sulfides, and other reactives. For D003 reactive cyanides, EPA is considering the transfer of numerical standards from cyanide wastes from electroplating, heat treating, or acrylonitrile production. Although reactive cyanides account for the majority of the quantity of D003 generated, EPA believes that most are already being treated by alkaline chlorination, wet-air oxidation, or electro-oxidation. Furthermore, these wastes are already restricted from landfills by existing regulations (40 CFR part 264.312, 265.312). EPA believes that sufficient capacity does exist for the volume of surface-disposed D003 cyanide reactive wastes and is not proposing a national capacity variance for them.

For D003 reactive sulfides, the Agency is proposing to require chemical oxidation and chemical precipitation, alkaline chlorination and chemical precipitation, or incineration and chemical precipitation to insoluble sulfates rather than proposing numerical standards. EPA believes sufficient capacity does exist for the volume of surface-disposed D003 sulfide wastes and is not proposing a national capacity variance for them.

For D003 explosive wastes, the Agency is proposing deactivation as a method of treatment. Because these wastes are already restricted from land disposal by existing regulations and are commonly burned and/or detonated openly, EPA is not proposing to grant a national capacity variance for their surface disposal.

The proposed method of treatment for D003 water-reactive wastes is also deactivation. EPA believes that these wastes are generated sporadically and in low volumes and are not typically land-disposed. Therefore, EPA is not proposing to grant a national capacity variance for their surface disposal.

For other reactive D003 wastes, EPA is proposing deactivation as a method of treatment. EPA believes these wastes could be incinerated or open detonated. EPA believes that there is adequate capacity for the treatment of small volumes of these wastes that are surface-disposed. Therefore, EPA is not proposing to grant a national capacity variance to surface disposal.

(d) *Potentially Reactive P and U Wastes*. This subgroup includes the following waste codes:

P006—Aluminum phosphide (R,T)

P009—Ammonium picrate (R)



P015—Beryllium dust  
 P056—Fluorine  
 P068—Methyl hydrazine  
 P073—Nickel carbonyl  
 P081—Nitroglycerin (R)  
 P087—Osmium tetroxide  
 P096—Phosphine  
 P105—Sodium azide  
 P112—Tetranitromethane (R)  
 P122—Zinc phosphide (>10%) (R,T)  
 U023—Benzotrichloride (C,R,T)  
 U086—N,N-Diethylhydrazine  
 U096—*a,a*-Dimethyl benzyl hydroperoxide (R)  
 U098—1,1-Dimethylhydrazine  
 U099—1,2-Dimethylhydrazine  
 U103—Dimethyl sulfate  
 U109—1,2-Diphenylhydrazine  
 U133—Hydrazine (R,T)  
 U134—Hydrofluoric acid (C,T)  
 U135—Hydrogen sulfide  
 U160—Methyl ethyl ketone peroxide (R,T)  
 U189—Phosphorus sulfide (R)  
 U249—Zinc phosphide (<10%)

These wastes are either highly reactive or explosive or are polymers that also tend to be highly reactive.

For the purpose of BDAT determinations, EPA has identified four subgroups: incinerable reactive organics and hydrazine derivatives (P009, P068, P081, P112, U023, U086, U096, U098, U099, U103, U109, U133, and U160); incinerable inorganics (P006, P096, P105, P122, U135, U189, and U249); fluorine compounds (P056 and U134); and recoverable metallic compounds (P015, P073, and P087). For incinerable organics, EPA is proposing to require the use of thermal destruction (i.e., incineration) as a method of treatment for nonwastewaters and carbon adsorption or incineration as methods of treatment for wastewaters, rather than establishing numerical standards. Because EPA believes sufficient treatment capacity exists for the small volume of surface-disposed incinerable organic wastes (P009, P068, P081, P112, U023, U086, U096, U098, U099, U103, U109, U133, U160, and U186), EPA is not proposing to grant a national capacity variance for them.

For incinerable inorganic wastes, EPA is proposing a standard based on thermal destruction (i.e., incineration) for nonwastewaters and chemical oxidation followed by precipitation to insoluble salts (rather than numerical standards) for wastewaters. EPA believes sufficient treatment capacity does exist for the small volume of surface-disposed incinerable metallic wastes (P006, P096, P105, P122, U135, U189, and U249) and is not proposing a national capacity variance for them.

For fluorine compounds, P056 and U134 nonwastewaters, EPA is proposing

to require chemical precipitation as a method of treatment. For P056 and U134 wastewaters, EPA is proposing concentration standards based on chemical precipitation. EPA believes that adequate treatment capacity exists for these wastes and is therefore not proposing to grant a capacity variance for their surface disposal.

For recoverable metallic compounds (P015, P073, and P087), EPA is proposing recovery as a method, rather than numerical standards. EPA has determined that there is not enough capacity available for the volumes of these wastes. Therefore, EPA is proposing to grant a capacity variance for them.

(4) Metal Wastes. This group includes arsenic, selenium, barium, cadmium, chromium, lead, mercury, silver, thallium, and vanadium wastes.

(a) *Arsenic and Selenium Wastes.*

D004—EP Toxic for arsenic  
 D010—EP Toxic for selenium  
 K031—By-product salts generated in the production of MSMA and cacodylic acid  
 K084—Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds  
 K101—Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds  
 K102—Residues from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds  
 P010—Arsenic acid  
 P011—Arsenic (V) oxide  
 P012—Arsenic (III) oxide  
 P036—Dichlorophenylarsine  
 P038—Diethylarsine  
 P103—Selenourea  
 P114—Thallium selenite  
 U136—Cacodylic acid  
 U204—Selenious acid  
 U205—Selenium disulfide

For arsenic and selenium nonwastewaters, EPA is proposing concentration standards based on vitrification. The TSDR Survey indicates that no commercial vitrification capacity exists. Therefore, EPA is proposing to grant a two-year capacity variance to all of the surface-disposed arsenic and selenium nonwastewaters listed above. However, the Agency is requesting information on commercial vitrification capacity.

For arsenic and selenium wastewaters, EPA is proposing

treatment standards for which chemical precipitation may be used as an alternative treatment. The TSDR survey indicates that adequate chemical precipitation capacity exists; therefore, EPA is not proposing to grant arsenic and selenium wastewaters a capacity variance.

(b) *Barium Wastes.* For D005 and P013 barium wastes, EPA is proposing acid or water leaching followed by chemical precipitation as sulfate or carbonate or stabilization as methods of treatment for nonwastewaters, and a concentration standard based on chemical precipitation for wastewaters. EPA is not reopening promulgated treatment standards for cyanides in P013 for comment. Sufficient capacity exists to treat surface-disposed D005 and P013 wastes. Therefore EPA is not proposing to grant a national capacity variance for these wastes.

(c) *Cadmium Wastes.* For D006 wastes, EPA is proposing treatment standards for three categories: cadmium batteries, wastewaters, and nonwastewaters. For D006 cadmium batteries, EPA is proposing thermal recovery as a method of treatment. For D006 wastewaters, EPA is proposing concentration standards based on chemical precipitation. For D006 nonwastewaters, EPA is proposing two options: (1) Concentration standards based on stabilization, and (2) stabilization or recovery as a method of treatment. EPA believes that sufficient capacity exists to treat surface-disposed cadmium nonwastewaters and wastewaters. Therefore, EPA is not proposing to grant a national capacity variance for them. Because cadmium batteries are land-disposed but there is no capacity for thermal recovery, EPA is proposing to grant a national capacity variance for cadmium batteries.

(d) *Chromium Wastes.* For D007 chromium waste and U032 (calcium chromate) wastewaters and nonwastewaters, EPA is proposing concentration treatment standards based on chromium reduction and lime or sulfide precipitation and sludge dewatering. EPA believes sufficient treatment capacity exists for the volume of these wastes. Therefore, EPA is not proposing to grant a national capacity variance for them.

(e) *Lead Wastes.*

D008—EP toxic for lead  
 P110—Tetraethyl lead  
 U144—Lead acetate  
 U145—Lead phosphate  
 U146—Lead subacetate

For D008 high-concentration lead wastes, EPA is proposing thermal



recovery as a method of treatment for nonwastewaters. For D008 low-concentration lead wastes, EPA is proposing treatment standards based on stabilization for nonwastewaters. For D008 low-concentration nonwastewaters containing significant concentrations of organics, EPA is proposing that these wastes be pretreated by incineration prior to stabilization. For all U145 and D008 wastewaters, treatment standards are proposed based on chemical precipitation with lime or sulfide, and sludge dewatering. For D008 lead acid batteries, EPA is proposing thermal recovery as a method of treatment. EPA believes sufficient capacity exists for surface-disposed D008 wastes. Therefore, EPA is not proposing to grant a national capacity variance for them.

EPA solicits comment, however, on the need for a national capacity variance for lead-bearing wastes that are stored in land disposal units such as piles before being resmelted. EPA has limited information suggesting that secondary lead smelters may use storage piles for lead-bearing wastes prior to smelting. This storage is a form of land disposal under section 3004(k). (As noted earlier, however, batteries themselves are containers and so placement of a battery in a storage pile is not land disposal under section 3004(k), any more than placement of a 55-gallon drum. The storage standards for containers still apply to battery storage areas, however. See 40 CFR part 266 subpart G.) Consequently, there must be alternative storage (i.e., tanks or no-migration piles) for these materials. EPA therefore solicits comment on the volumes of lead-bearing wastes that are stored in land disposal units prior to treatment by metal recovery facilities, and the need for a national capacity variance for such materials.

For P110, U144, U145, and U146, EPA is proposing treatment standards based on chemical reduction and precipitation with lime or sulfide and sludge dewatering for wastewaters, and stabilization for nonwastewaters. For P110, U144, U145, and U146 nonwastewaters containing significant concentrations of organics, EPA is proposing pretreatment by incineration prior to stabilization. EPA believes sufficient capacity exists for the small volume of these wastes that are surface-disposed; therefore, EPA is not proposing to grant a national capacity variance for them.

#### (f) Mercury Wastes.

D009—EP toxic for mercury

K071—Chlorine production wastes

K106—Wastewater treatment sludges from the mercury cell process in chlorine production

P065—Mercury fulminate

P092—Phenylmercuric acetate

U151—Mercury

For D009, K071, K106, P065, P092 and U151 wastewaters, EPA is proposing concentration standards based on chemical precipitation. Mercury-bearing wastewaters containing hexavalent chromium may require chromium reduction prior to treatment of the mercury. Likewise, wastewaters containing organics may require chemical oxidation prior to treatment of the mercury.

For K106 and U151, EPA is proposing to establish a low mercury subcategory and high mercury subcategory for nonwastewaters. For the high mercury subcategory, EPA is proposing roasting or retorting as a method of treatment. For the low mercury subcategory, EPA is proposing concentration standards based on acid leaching. Residues from the acid leaching of the low mercury subcategory may require thermal recovery of mercury.

Treatment standards for K071 nonwastewaters were originally promulgated in the First Third rule. EPA is proposing to revise the standards for the high mercury concentration subcategory. For these high mercury nonwastewaters, EPA is now proposing roasting or retorting as a method. For the low mercury subcategory, promulgated standards are unchanged.

For D009, P065, and P092 nonwastewaters, EPA is proposing roasting or retorting as a method for high mercury concentrations. If the organic content is too high for the roasting or retorting, incineration would be required as a pretreatment step for these nonwastewaters.

EPA believes sufficient capacity exists to treat the volume of all surface-disposed mercury wastewaters. Thus, EPA is not proposing to grant a variance for them. Current data do not provide sufficient information on the volume of mercury wastes that contain high and low concentrations of mercury. Although EPA does not have any data on these mercury waste volumes, there is no commercial acid leaching capacity and there is insufficient mercury retorting capacity for D009, K071, K106, P065, P092, and U151 nonwastewaters. Thus, EPA is proposing to grant a two-year national variance for mercury nonwastewaters.

(g) Silver Wastes. Treatment standards for P099 and P104 nonwastewaters were promulgated in the Second Third final rule. For D011,

P099, and P104 wastewaters, EPA is proposing concentration standards based on chemical precipitation. For D011 nonwastewaters, EPA is proposing two alternatives: (1) A concentration standard based on stabilization; or (2) recovery or stabilization as a method of treatment. EPA believes adequate capacity exists to treat surface-disposed D011, P099, and P104 wastes. Therefore, EPA is not proposing a capacity variance for them.

#### (h) Thallium Wastes.

P113—Thallic oxide

P114—Thallium selenite

P115—Thallium (I) sulfate

U214—Thallium (I) acetate

U215—Thallium (I) carbonate

U216—Thallium (I) chloride

U217—Thallium (I) nitrate

For treating P113, P115, U214, U215, U216, and U217, EPA is proposing recovery or stabilization as a method of treatment for nonwastewaters and concentration standards based on chemical oxidation followed by chemical precipitation and filtration for wastewaters. For P114, EPA is proposing stabilization or vitrification for nonwastewaters, and concentration standards based on chemical oxidation followed by chemical precipitation and filtration for wastewaters. Based on the TSDR Survey, adequate capacity exists for surface-disposed thallium wastewaters. Therefore, EPA is not proposing to grant a national capacity variance for thallium wastewaters. No commercial capacity exists for vitrification; therefore, EPA is proposing to grant P114 nonwastewaters a national capacity variance. Capacity is available to treat other thallium nonwastewaters; therefore, EPA is not proposing to grant other thallium nonwastewaters a national capacity variance.

#### (i) Vanadium Wastes.

P119—Ammonium vanadate

P120—Vanadium pentoxide

For treating these wastes, EPA is proposing thermal recovery or stabilization as a method of treatment for nonwastewaters, and concentration standards based on chemical precipitation for wastewaters. Although no commercial vanadium recovery capacity has been identified, adequate stabilization capacity exists for treating P119 and P120 nonwastewaters. Therefore, EPA is not proposing to grant a two-year national capacity variance for P119 and P120 nonwastewaters. Adequate capacity exists for chemical precipitation, and therefore, EPA is not proposing to grant P119 and P120 wastewaters a national capacity variance.



(5) Specific Treatability Groups. These groups include wastes from pigment production (K002 through K008); cyanide wastes (F006, F019, K011, K013, K014, P031, P033, U246); K015; gases (P076, P078, U115); K086; F002 and F005; K022, K025, K026, K035, and K083; K036 and K037; F024 and F025; K044, K045, K046, K047, K060, K061, K069, K100 wastes; and K048 through K052.

(a) *Cyanide Wastes.* For F006 wastewaters, EPA is proposing BDAT treatment standards based on alkaline chlorination for cyanides and chemical reduction and precipitation with lime and sulfide and sludge dewatering for metals. EPA believes that adequate capacity exists for the volume of surface-disposed F006 wastewaters. Therefore, EPA is not proposing a variance for them.

Treatment standards for F019 wastewaters are based on the performance of wet-air oxidation for cyanides. Treatment standard for metals in wastewaters are based on chromium reduction, chemical precipitation with lime and sulfide, and sludge dewatering. Treatment standards for the nonwastewaters are based on the performance of wet-air oxidation for cyanides and stabilization for metals. EPA believes that inadequate capacity exists for wet-air oxidation; therefore, EPA is proposing to grant a two-year variance to F019 nonwastewaters. Because sufficient wet-air oxidation capacity exists to treat the F019 wastewaters, EPA is not proposing to grant a national capacity variance for F019 wastewaters.

Treatment standards for the surface disposal of nonwastewater forms of K011, K013, and K014 were promulgated in the Second Third rule. For K011, K013, and K014 wastewaters, EPA is proposing BDAT treatment standards based on wet-air oxidation. The TSDR Survey shows that sufficient capacity exists for the volume of surface-disposed K011, K013, and K014 wastewaters. Therefore, EPA is not proposing to grant a capacity variance for them.

For the P and U wastes containing cyanide, P031 (Cyanogen), P033 (Cyanogen chloride), and U246 (Cyanogen bromide), EPA is proposing incineration or alkaline chlorination as methods for both wastewaters and nonwastewaters. EPA has determined that sufficient capacity exists to treat these wastes; therefore, EPA is not proposing to grant a national capacity variance for these wastes.

(b) *F024 and F025 Wastes.* EPA promulgated standards for F024 wastewaters and nonwastewaters in the Second Third rule based on rotary kiln

incineration for organic constituents and chemical precipitation and vacuum filtration for metal constituents in wastewaters. Today, EPA is proposing stabilization as the BDAT for treatment of metal constituents in F024 nonwastewaters. The TSDR Survey indicates that adequate treatment capacity exists for the volume of surface-disposed F024 nonwastewaters requiring treatment. Therefore, EPA is not proposing to grant a capacity variance for them. However, the standard for F024 includes a standard for dioxins. There is concern that there may not be adequate capacity for these wastes, because facilities may not be accepting wastes that must meet a dioxin standard. EPA is soliciting comments on the need for and the availability of capacity for F024, including information on capacity needed and available to meet dioxin standards.

Although listing of F025 waste (condensed light ends, spent filters and filter aids, and spent dissolvent wastes from the production of certain chlorinated aliphatics) has not been promulgated as a RCRA hazardous waste, EPA believes that promulgation of the listing for F025 will occur prior to the promulgation of the Third Third final rule. Most generators already treat F025 as if it were hazardous, and some facilities comingle F024 and F025. Today EPA is proposing concentration treatment standards for all categories of F025 wastewaters and nonwastewaters. The BDAT for F025 wastewater and nonwastewater light ends, spent filters, filter aids and dessicants is incineration. EPA has determined that no alternative treatment capacity is needed for F025 wastes. Therefore, EPA is not proposing to grant these wastes a national capacity variance.

(c) *Wastes from Inorganic Pigment Production.* EPA is proposing to revoke the no land disposal standard previously promulgated for K004, K005, K007, and K008 nonwastewaters. EPA is proposing BDAT based on chromium reduction and precipitation and filtration for K002, K003, K004, K005, K006, K007, and K008 wastewaters and nonwastewaters. EPA believes that sufficient capacity exists for surface-disposed K002, K003, K004, K005, K006, K007, and K008 wastewaters and nonwastewaters. Therefore, EPA is not proposing to grant a capacity variance for them.

(d) *K015 Wastes.* EPA is proposing to revoke the no land disposal based on no generation standard previously promulgated for K015 (benzyl chloride distillation wastes) nonwastewaters because of the reported generation of ash containing this waste.

Consequently, for this waste, EPA is proposing treatment standards for five organic and two metal constituents. Treatment standards for the organic constituents are based on a transfer of the performance data of incineration for similar wastes. Treatment standards for metal constituents are based on a transfer of the performance of stabilization of incinerator ash for similar wastes. These technologies both have available capacity; therefore, EPA is not proposing a variance for K015 nonwastewaters.

(e) *K022, K025, K026, K035, and K083 Wastes.* EPA promulgated treatment standards for K022, K025 and K083 nonwastewaters in the First Third rule. For organics in K022 wastewaters and nonwastewaters, EPA is proposing treatment standards based on incineration. For metals in K022 wastewaters, EPA is proposing treatment standards based on chemical precipitation. Alternatively, EPA is proposing K022 treatment standards expressed as methods of treatment.

For K025 nonwastewaters, EPA is revising the treatment standard of no land disposal based on no generation. For K025 wastewaters, EPA is proposing concentration treatment standards for organics based on liquid-liquid extraction and steam stripping and carbon adsorption. The proposed treatment standards for K025 nonwastewaters are based on incineration. Alternatively, EPA is proposing to require these methods of treatment as a prerequisite for land disposal of K025 wastewaters and nonwastewaters. Incineration of K025 wastewaters is also proposed as an equivalent method of treatment for K025 wastewaters.

For K026 and K035, the treatment standards for wastewaters and nonwastewaters are based on incineration. Alternatively, EPA is proposing to require incineration as a prerequisite for land disposal of K026 wastewaters and nonwastewaters. EPA is revising the standard of no land disposal for K083 nonwastewaters. For organics identified in K083 wastewaters and nonwastewaters, EPA is proposing treatment standards based on incineration. For metals in K083 wastewaters, EPA is proposing treatment standards based on chemical precipitation. For metals in K083 nonwastewaters, EPA is proposing treatment standards based on stabilization. Alternatively, EPA is proposing K083 treatment standards expressed as methods of treatment.

EPA believes that adequate capacity exists for K022 wastewaters, K025



wastewaters and nonwastewaters, K026 wastewaters and nonwastewaters, K035 wastewaters and nonwastewaters, and K083 wastewaters and nonwastewaters, and therefore, EPA is not proposing to grant these wastes a capacity variance.

(f) *K036 and K037 Wastes.* EPA promulgated a treatment standard of no land disposal based on no generation for K036 nonwastewaters in the First Third rule. EPA also promulgated treatment standards based on incineration for K037 wastewaters and nonwastewaters in the First Third rule. Today, EPA is proposing revised treatment standards for the nonwastewater form of K036 (still bottoms from toluene reclamation distillation in the production of disulfoton) and the wastewater form of K037 (wastewater treatment sludges from the production of disulfoton). EPA is proposing to transfer the concentration standards from K037 nonwastewaters based on incineration to other forms of K036 nonwastewaters (e.g., K036 spill residues). EPA believes that adequate capacity exists for these surface-disposed K036 nonwastewaters. Therefore, EPA is not proposing to grant a national capacity variance for them.

For K037 wastewaters, EPA is proposing a revised concentration standard from one based on rotary kiln incineration to one based on biological treatment. EPA believes that adequate capacity exists for surface-disposed K037 wastewaters; therefore, EPA is not proposing a capacity variance for them.

(g) *K044, K045, K046, K047 wastes.* For K044, K045, and K047, EPA is proposing to revoke the no land disposal based on reactivity standard promulgated in the First Third rule. EPA is proposing deactivation as a method of treatment for wastewaters and nonwastewaters. EPA believes adequate capacity exists to treat these wastes; therefore, EPA is not proposing to grant them a national capacity variance.

In the First Third rule, EPA promulgated treatment standards based on stabilization for K046 nonreactive nonwastewaters. Today EPA is proposing standards for K046 reactive nonwastewaters based on stabilization. For K046 reactive wastewaters, EPA is proposing the use of deactivation and chemical precipitation, settling, and filtration as a BDAT. For K046 non-reactives wastewaters, EPA is proposing chemical precipitation, settling and filtration for wastewaters as a BDAT. EPA believes that adequate capacity exists for these wastes and, therefore, EPA is not proposing to grant them a national capacity variance.

(h) *K060 Wastes.* Today EPA is proposing to revoke the no land disposal based on no generation standards

promulgated for K060 nonwastewaters in the First Third rule. For K060 nonwastewaters, EPA is proposing incineration as the BDAT. EPA is proposing BDAT standards for K060 wastewaters based on biological treatment. For K060 arsenic nonwastewaters, EPA is proposing BDAT standards based on vitrification. EPA believes that adequate capacity exists for the volume of surface-disposed K060 wastewaters and nonwastewaters requiring treatment. Therefore, it is not proposing to grant a capacity variance for them.

(i) *K061 Wastes.* In the First Third final rule, EPA promulgated treatment standards for K061 nonwastewaters. In this rule, two subcategories for nonwastewater forms of K061 were defined. The low zinc subcategory (less than 15 percent) and the high zinc category (greater than 15 percent) were defined as separate treatability groups. BDAT for the low zinc subcategory was based on the performance of stabilization. For the high zinc subcategory, the final standard was "No Land Disposal Based on High Temperature Metals Recovery as a Method of Treatment" technology. Today, EPA is proposing to revise the promulgated treatment standard for the high zinc subcategory to be resmelting in a high temperature zinc metal recovery furnace. For the First Third final rule, K061 nonwastewaters were granted a national capacity variance. Today's proposed refinement in the treatment standard does not change the schedule for the capacity variance for K061 nonwastewaters.

Today, EPA is proposing the BDAT standard based on chromium reduction and chemical precipitation with lime and sulfide and sludge dewatering for wastewaters. EPA believes adequate capacity exists for the volume of surface-disposed K061 wastewaters. Therefore, EPA is not proposing to grant a variance for them.

(j) *K069 Wastes.* Today, EPA is proposing to revoke the no land disposal based on recycling standard promulgated in the First Third rule for the non-calcium sulfate subcategory for K069 nonwastewaters. For calcium sulfate nonwastewaters, EPA is proposing a standard based on the performance of stabilization. For non-calcium sulfate nonwastewaters, EPA is proposing recycling as a method of treatment. For wastewaters, EPA is proposing a BDAT standard based on chemical precipitation. EPA believes adequate capacity exists to treat the volume of surface-disposed K069 wastewaters and nonwastewaters;

therefore, EPA is not proposing a capacity variance for them.

(k) *Revisions to K086 Wastes.* EPA promulgated treatment standards for K086 solvent washes in the First Third Rule based on incineration and stabilization of ash for nonwastewaters and incineration and chromium reduction, chemical precipitation and filtration for wastewaters. Today EPA is proposing to revise these standards and propose standards for the caustic sludges and water sludges subcategories. EPA is proposing treatment standards for all K086 wastewater and nonwastewater wastes based on incineration for organics and chromium reduction, followed by excess lime precipitation, and filtration for metals. As a "worst-case" analysis, EPA included in the capacity analysis conducted for First Third wastes all of the K086 wastes identified in the TSDR Survey. Consequently, no additional capacity will be required by today's proposal, and no capacity variance is being proposed for K086 wastes.

(l) *K100 Wastes.* For K100 nonwastewaters, EPA is proposing to revoke the no land disposal based on no generation standards promulgated in the First Third rule. Today, EPA is proposing treatment standards based on stabilization for nonwastewaters and chemical precipitation for wastewaters. EPA believes adequate capacity exists to treat the volume of surface-disposed K100 wastes. Therefore, EPA is not proposing a capacity variance for them.

(m) *Gases.* This treatability group includes the following groups: P076 (Nitric oxide), P078 (Nitrogen dioxide), and U115 (Ethylene oxide). For P076, P078, and U115 wastewaters and nonwastewaters, EPA is proposing recovery as a method of treatment. EPA believes that these wastes are generated as gases and industry typically reuses or recovers compressed gases directly. EPA also believes that these gases are not land disposed. Although no commercial capacity exists for recovery of these gases, EPA is not proposing to grant a national capacity variance for these wastes, because the Agency believes these wastes will not require commercial alternative treatment.

(n) *Revisions to Petroleum Refining Wastes (K048-K052).* For the First Third rule, EPA promulgated treatment standards for K048 through K052 based on data from incineration, solvent extraction, and treatment of the metals in wastewater and nonwastewater residuals. Today, EPA is proposing additional treatment standards based on a reevaluation of the data and is proposing that these revised standards,



with five exceptions, take effect exactly one year following the Third Third rulemaking promulgation date. The five exceptions, whose standards have been increased based on the revised data are: benzo (a) pyrene, ortho and para cresols, di-n-butyl phthalate, and phenol. For these exceptions, EPA is proposing that the new standards become effective on August 8, 1990, when the capacity variance issued on K048 through K052 wastes expires.

EPA is proposing treatment standards for cyanide K048 through K052 wastewaters based on incineration. EPA is also proposing BDAT concentration standards for organics in K048 through K052 nonwastewaters based on solvent extraction. The Agency is not proposing revisions to promulgated BDAT treatment standards for wastewater constituents in K048 through K052 wastewaters, other than cyanide, nor for any metal constituents in the K048 through K052 wastewaters or nonwastewaters. The Agency has only revised the concentration-based treatment standards for K048 through K052 nonwastewaters; EPA has not reevaluated the selection of solvent extraction and incineration as BDAT for organics in nonwastewaters. Because the capacity analysis was conducted for these wastes in the First Third rule and the technologies needed to achieve BDAT treatment standards are not being revised, EPA did not reevaluate the alternative capacity requirements for K048 through K052 wastes.

(o) *Additional Treatment Standards for F002 and F005 Wastes.* Treatment standards for F002 and F005 were promulgated in the Solvents and Dioxins rule. Today EPA is proposing revisions to the treatment standards for F002 and F005 to account for four newly listed F002 and F005 constituents. The BDAT for wastewaters is based on biological treatment, and liquid-liquid extraction and steam stripping and carbon adsorption. The BDAT for nonwastewaters is based on incineration. The Agency believes that adequate treatment capacity exists for these wastes and therefore, EPA is not proposing a national capacity variance for these wastes.

(p) *Capacity Determination for Multi-Source Leachate—(1) Definition and Applicability.* EPA defines multi-source leachate as leachate that is derived from the treatment, storage, disposal, or recycling of more than one listed hazardous waste. Under today's proposed rule, such leachate will be restricted from land disposal. Residues from treating such leachate, as well as residues such as soil and ground water

that are contaminated by such leachate, are also restricted from land disposal under this rule. Leachate deriving from a single source must meet the standard developed for the waste code from which it is derived; therefore, such leachate is not subject to the standards developed for multi-source leachate. (EPA is also soliciting comment on modifying the definition of multi-source leachate.)

(2) *Previous Treatment Standards.* EPA originally imposed a land disposal restriction on multi-source leachate under the First Third of the land disposal restrictions (LDRs). Under the LDRs, multi-source leachate would have to be treated to satisfy all the standards applicable to the original wastes from which the leachate is derived (see 53 FR 31146-150 (August 17, 1988)). EPA revisited the issue of treatability of multi-source leachate to address concerns raised by the hazardous waste management industry, and rescheduled promulgation of a land disposal restriction for multi-source leachate to the Third Third of the LDRs in order to fully study the most appropriate section 3004(m) treatment standards for multi-source leachate (see 54 FR 8264 (January 27, 1989)). Leachate derived from disposal of the listed dioxin-containing hazardous wastes and California list wastes were not rescheduled.

(3) *Proposed Treatment Standards.* In section 7.b of this preamble, EPA is proposing two options for the development of treatment standards for multi-source leachate. Under the first option, EPA would continue the application of the carry-through principle under which multi-source leachate must meet the standards established for all the waste codes from which it is derived. Under the second option, EPA would establish one set of wastewater standards and one set of nonwastewater standards for multi-source leachate; these standards would also apply to residuals derived from the storage, treatment, or disposal of multi-source leachate. For treating multi-source leachate in the form of wastewater, EPA is considering recommending the treatment of wastewaters by wet-air oxidation or biological treatment, followed by carbon adsorption, or incineration. For nonwastewaters derived from treating multi-source leachate, EPA is considering a treatment standard based on incineration for organic constituents and on stabilization for metals.

(4) *Determination of Volumes Requiring Alternative Treatment or Recovery Capacity.* EPA relied primarily on data from the TSDR Survey

and from the Generator Survey to determine whether sufficient alternative treatment or recovery capacity is available for multi-source leachate. Multi-source leachate is primarily generated in landfills. All the active regulated facilities generating and managing leachate are accounted for in the TSDR and Generator Surveys because (1) the TSDR Survey is a census of all the hazardous waste treatment, storage, disposal, and recycling facilities in the country; and (2) the Generator Survey, while it is a sample of hazardous waste generators, includes every facility that responded to the TSDR Survey.

EPA recognizes that multi-source leachate can also be generated at closed facilities. However, only sparse data characterizing leachate currently exist for those facilities and how much is presently land-disposed in surface disposal units. The Agency requests comments on the characterization of multi-source leachate at closed facilities and how much is presently land-disposed in surface disposal units.

EPA also welcomes the submission of current data from interested parties on the volumes of multi-source leachate generated, the current management of such leachate, the amount of residuals generated, and the waste constituent composition of multi-source leachate.

In addition to data from the TSDR and Generator Surveys, EPA examined data submitted as part of a leachate study plan by four major companies managing hazardous wastes at 17 facilities. These companies included Chemical Waste Management (CWM)/Waste Management of North America (WMNA), Browning Ferris Industries (BFI)/CECOS, DuPont, and Dow Chemical.

Based on evaluation of this information, EPA estimated volume of multi-source leachate requiring alternative treatment or recovery. EPA recognizes that the actual total quantity of multi-source leachate generated, managed, and land-disposed may be much larger than the volumes reported in the surveys upon which this analysis is based. Consequently, EPA welcomes comments by interested parties on the current generation, management, and land disposal of multi-source leachate.

(5) *Determination of National Variances for Multi-Source Leachate.* EPA analyzed the alternative treatment or recovery capacity for two categories of multi-source leachate: wastewaters and nonwastewaters.

Treatment standards for wastewaters are based on wet-air oxidation and carbon adsorption, biodegradation and



carbon adsorption, and incineration for organic constituents; for inorganic constituents, treatment standards are based on chemical precipitation. Given the very low volumes of surface-disposed multi-source leachate wastewaters and the adequate capacity to treat these wastes using the above treatment technologies, EPA is not proposing to grant a variance for surface-disposed multi-source leachate wastewaters.

Treatment standards for nonwastewaters are based on incineration as a method for wastes containing organic constituents, and on stabilization for wastes containing inorganic constituents. EPA is proposing to grant a two-year variance for surface-disposed multi-source leachate nonwastewaters in the form of non-atomizable sludges and solids, because there is insufficient incineration capacity for these wastes. However, EPA is not proposing to grant a national capacity variance to nonwastewater multi-source leachate in the form of atomizable organic liquids because there are very low volumes of such wastes and there is sufficient capacity for them.

(q) *Capacity Determination for Mixed Radioactive Wastes*—(1) *Background*. EPA has defined a mixed RCRA/radioactive waste as any matrix containing a RCRA hazardous waste and a radioactive waste subject to the Atomic Energy Act (53 FR 37045, 37046, September 23, 1988). Regardless of the type of radioactive constituents that these wastes contain (e.g., high-level, low-level, or transuranic), they are subject to RCRA hazardous waste regulations, including the land disposal restrictions.

Radioactive wastes that are mixed with spent solvents, dioxins, or California list wastes are subject to the land disposal restrictions already promulgated for those hazardous wastes. EPA has determined, however, that radioactive wastes that are mixed with First Third and Second Third wastes will be included in the Third Third rulemaking (40 CFR 268.12(c)). Thus, today's proposal addresses radioactive wastes that contain First Third, Second Third, and Third Third wastes.

(2) *Data Sources*. The Department of Energy (DOE) is a major generator of mixed RCRA/radioactive wastes. For data on DOE wastes, EPA used a data set submitted by DOE. The data set, which is based on a recent DOE survey, contains information on mixed RCRA/radioactive waste inventories, generation rates, and existing and

planned treatment capacity at 21 DOE facilities.

A variety of non-DOE facilities also generate mixed RCRA/radioactive wastes, including nuclear power plants, academic and medical institutions, and industrial facilities. A variety of information sources were used to identify the non-DOE generators, estimate the quantities and types of mixed RCRA/radioactive wastes that they generate, and determine current management practices and treatment capacity. These sources included the TSDR Survey, the Generator Survey, and other studies.

EPA believes that these sources provide the best available information on non-DOE mixed RCRA/radioactive wastes. However, EPA is interested in obtaining additional information on their generation, characterization, and management.

(3) *Determinations of National Variances for Mixed RCRA/Radioactive Wastes*. After investigating the data sources noted above, EPA estimated that approximately 363 million gallons of radioactive waste mixed with First, Second, and Third Third wastes will require treatment. This volume includes wastes generated annually as well as untreated wastes in storage and contaminated soil and debris. EPA has also determined that alternative treatment capacity is not available for mixed RCRA/radioactive wastes. Consequently, EPA proposes to grant a national variance for mixed RCRA/radioactive wastes. Although DOE has plans to increase its capacity to treat mixed RCRA/radioactive wastes, data supplied by DOE indicate that DOE currently lacks adequate capacity to treat its mixed RCRA/radioactive wastes. In addition, adequate commercial treatment capacity is not available. Thus, EPA has determined that sufficient alternative treatment capacity is not available and is proposing a two-year national capacity variance for mixed RCRA/radioactive wastes.

EPA recognizes that its information on mixed RCRA/radioactive wastes generated and managed by non-DOE facilities may be incomplete. Consequently, the Agency requests comments by interested parties on the current generation of mixed RCRA/radioactive wastes. Of particular interest to EPA is information on mixtures of radioactive wastes and First, Second, or Third Third waste streams.

2. *Determination of Alternative Capacity and Effective Dates for Underground Injected Waste*. The

Agency is today proposing effective dates for the restrictions against the underground injection of virtually all remaining RCRA section 3004(g) wastes, including characteristic wastes, for which no effective dates have been set. EPA is not acting on certain newly listed or newly identified wastes. EPA solicits comment on the volumes and characteristics of the wastes represented in this section, as well as any information on the characteristics and volumes of any multi-source leachate that is currently being injected.

#### a. Proposed Effective Date Determinations for Wastes With Treatment Standards Proposed in Today's Rule

Consistent with the policy established in previous land disposal restrictions, the Agency is proposing to restrict on May 8, 1990, the underground injection of all wastes, with treatment standards proposed in today's rule, that are not currently being deepwell-injected. This decision is consistent with the intent of RCRA in moving hazardous wastes away from disposal and toward treatment. Wastes that are not currently being deepwell-injected are listed in Table III.B.2.(a).

The volumes of deepwell-injected wastes that require alternative commercial treatment and/or recycling capacity are presented in Table III.B.2.(b). This table does not include wastes that are currently being deepwell-injected, and the facility has an appropriate on-site alternative treatment technology for treating the waste.

The Agency is proposing effective date determinations for all underground injected wastes in treatability groups. If there is adequate available alternative treatment capacity for all the injected volume in a single treatability group, then every waste in that group will be restricted from underground injection on May 8, 1990. If there is inadequate available alternative treatment capacity for the injected volume in a single treatability group, then the Agency is proposing to allocate as much of the available capacity to the wastes requiring treatment. All remaining wastes in the treatability group, for which no capacity exists, will receive a two-year national capacity variance. EPA believes this is most consistent with Congressional intent, which both favors treatment over disposal, and minimal use of capacity variances. EPA specifically solicits comment on this approach. Table III.B.2.(c) indicates the amount of capacity available for treating underground injected wastes, the



demand from these injected wastes on each treatability group, and which treatability groups require capacity variances. More information on the Agency's procedure for apportioning treatment capacity in these treatability groups can be found in the Third Thirds Background Document for the treatability groups.

TABLE III.B.2.(a)—WASTES (WITH PROPOSED TREATMENT STANDARDS) THAT ARE NOT UNDERGROUND INJECTED

[Banned from underground injection on May 8, 1990]

First Third Codes:

K004, K008, K015 (nonwastewaters, K017, K021 (wastewaters), K022 (wastewaters), K035, K036 (nonwastewaters), K037 (wastewaters), K044, K045, K046 (reactive nonwastewaters and all wastewaters), K047, K060 (wastewaters), K061 (wastewaters), K069 (CaSO<sub>4</sub> nonwastewaters and all wastewaters), K071 (nonwastewaters), K073, K084, K085, K101 (high arsenic nonwastewaters), K102 (high arsenic nonwastewaters), K106, P001, P004, P010, P012, P015, P016, P018, P036, P037, P068, P070, P081, P082, P084, P087, P092, P105, P108, P110, P115, P120, P123, U010, U016, U018, U020, U022, U029, U036, U041, U043, U046, U050, U051, U053, U061, U063, U064, U066, U067, U077, U078, U086, U089, U108, U115, U124, U129, U130, U137, U155, U158, U171, U177, U180, U209, U237, U238, U248, U249

Second Third Codes:

K025 (Wastewaters), K029 (wastewaters), K041, K042, K095 (wastewaters), K096 (wastewaters), K098, K105, P002, P003, P007, P008, P013 (wastewaters), P014, P026, P027, P049, P054, P060, P066, P067, P072, P099, K028 (wastewaters), P112, P113, P114, U003, U005, U011, U014, U015, U021, U023, U025, U028, U035, U047, U049, U057, U059, U060, U062, U073, U083, U092, U093, U094, U095, U097, U098, U099, U101, U109, U110, U111, U114, U116, U119, U127, U128, U131, U135, U142, U143, U144, U146, U149, U150, U161, U163, U164, U168, U172, U173, U174, U178, U179, U189, U193, U196, U203, U205, U206, U208, U213, U214, U215, U216, U217, U218

Third Third Codes:

K003, K005 (wastewaters), K006, K007 (wastewaters), K026, K033, K034, K100 (wastewaters), P006, P009, P017, P022, P023, P024, P028, P031, P033, P034, P038, P042, P045, P046, P047, P064, P065, P073, P076, P077, P078, P088, P093, P095, P096, P101, P103, P116, P118, P119, U004, U006, U017, U024, U027, U030, U033, U038, U039, U042, U048, U052, U068,

U071, U072, U075, U076, U079, U081, U082, U084, U085, U090, U091, U096, U117, U120, U121, U123, U125, U126, U132, U136, U139, U141, U145, U148, U152, U153, U156, U166, U167, U181, U182, U183, U184, U186, U187, U191, U201, U202, U204, U207, U222, U225, U234, U236, U240, U243, U247

Newly Listed Wastes:  
F025

Table III.B.2.(b)—REQUIRED ALTERNATIVE COMMERCIAL TREATMENT/RECYCLING CAPACITY FOR UNDERGROUND INJECTED WASTES

[Million gallons/year]

Waste code	Capacity required for underground injected wastes
First Third Code:	
F006	5.0
F019	<0.1
K011	433.2
K013	407.2
K014	131.0
K031	1.1
K086	0.2
P005	<0.1
P011	<0.1
P020	0.1
P048	0.1
P050	0.4
P058	<0.1
P059	0.4
P069	0.1
P102	<0.1
P122	<0.1
U007	0.1
U009	<0.1
U012	0.1
U019	0.8
U031	0.1
U037	<0.1
U044	0.1
U074	<0.1
U103	<0.1
U105	0.1
U122	0.1
U133	0.1
U134	0.2
U151	0.1
U154	0.3
U157	0.1
U159	<0.1
U185	1.0
U188	0.4
U192	0.1
U200	0.3
U210	1.0
U211	0.1
U219	<0.1
U220	<0.1
U226	0.1

Table III.B.2.(b)—REQUIRED ALTERNATIVE COMMERCIAL TREATMENT/RECYCLING CAPACITY FOR UNDERGROUND INJECTED WASTES—Continued

[Million gallons/year]

Waste code	Capacity required for underground injected wastes
U227	2.7
U228	<0.1
Second Third Code:	
K097	<0.1
P057	<0.1
U002	0.1
U008	0.1
U032	<0.1
U070	0.1
U080	2.8
U106	0.1
U138	0.1
U140	1.0
U147	<0.1
U162	0.1
U165	<0.1
U169	0.1
U170	0.3
U239	0.2
U244	<0.1
Third Third Code:	
D001	6.9
D002	1924.5
D003	1709.2
D004	8.3
D005	1.3
D006	1.6
D007	201.2
D008	3.7
D009	1.2
D010	95.2
D011	0.3
D012	2.3
D013	2.3
D014	2.4
D015	2.3
D016	2.3
D017	2.3
K002	0.1
K032	<0.1
K083	5.0
P051	<0.1
P056	<0.1
P075	<0.1
U001	0.5
U034	<0.1
U045	<0.1
U055	0.1
U056	<0.1
U112	<0.1
U113	<0.1
U118	<0.1
U160	<0.1
U194	<0.1
U197	0.1
Leachate	13.4

TABLE III.B.2.(c)—REQUIRED ALTERNATIVE COMMERCIAL TREATMENT (INCLUDING RECYCLING) CAPACITY FOR UNDERGROUND INJECTED WASTES

[Millions of gallons/yr.]

Technology	Available capacity	Required capacity	Variance
Alkaline Chlorination	1.8	11	Yes.
Alkaline Chlorination and Chemical Precipitation	6.4	<1	No.
Carbon Adsorption and Chemical Precipitation	41	5	No.
Chemical Oxidation and Chemical Precipitation	22	1,684	Yes.



TABLE III.B.2.(c)—REQUIRED ALTERNATIVE COMMERCIAL TREATMENT (INCLUDING RECYCLING) CAPACITY FOR UNDERGROUND INJECTED WASTES—Continued

[Millions of gallons/yr.]

Technology	Available capacity	Required capacity	Variance
Chemical Precipitation.....	339	117	No.
Chromium Reduction and Chemical Precipitation.....	12	239	Yes.
Combustion of Atomizable Liquids.....	233	43	No.
Mercury Retorting.....	<.01	<.02	Yes.
Neutralization.....	13	1,638	Yes.
Stabilization.....	329	3	No.
Treatment of Reactives and Chromium Reduction and Chemical Precipitation.....	<1	195	Yes.
Wet-Air Oxidation.....	<1	1,027	Yes.
Wet-Air Oxidation and Carbon Adsorption.....	<1	<1	No.
Wet-Air Oxidation and Carbon Adsorption and Chemical Precipitation.....	<1	13.4	Yes.
Wet-Air Oxidation Followed by Chemical Precipitation.....	<1	<1	No.

A number of the following treatability groups account for relatively small (less than 100,000 gallons/year) amounts of underground injected wastes. The Agency believes that these small streams place little demand on nationwide treatment capacity.

Presented below are the BDATs for treating deepwell-injected wastes.

(1) *Alkaline Chlorination*. Treatment standards based on alkaline chlorination are today being proposed for D003a (cyanide) and P056 wastes. As shown in Table III.B.2.(c), the 1.9 million gallons per year of available capacity are inadequate to address the quantity of hazardous waste annually deepwell-injected requiring this type of treatment. Excluding D003a (cyanide), however, adequate capacity exists for the remaining waste. The Agency is proposing to grant a two-year capacity variance to D003a (cyanide) wastewaters. This waste will be restricted from injection on May 8, 1992.

(2) *Alkaline Chlorination and Chemical Precipitation*. Treatment standards based on alkaline chlorination and chemical precipitation are today being proposed for F006 cyanide wastewaters. As shown in Table III.B.2.(c), the 6.4 million gallons of available capacity is adequate to treat the quantity of hazardous waste annually deepwell-injected requiring this type of treatment.

(3) *Carbon Adsorption and Chemical Precipitation*. Treatment standards based on carbon adsorption (or wet air oxidation) and chemical precipitation are today being proposed for metals in K022 and K083 wastewaters. As shown in Table III.B.2.(c), the 41 million gallons of available capacity are adequate to treat the quantity of hazardous waste annually deepwell-injected requiring this type of treatment.

(4) *Chemical Oxidation and Chemical Precipitation*. The treatment standards based on a "treatment train" of chemical

oxidation and chemical precipitation are today being proposed for D003b (sulfides) and P122 wastes. As shown in Table III.B.2.(c), the 24 million gallons per year of available capacity are inadequate to address the quantity of hazardous wastes annually deepwell-injected requiring this type of treatment. Excluding D003b (sulfide), however, adequate capacity exists to treat the remaining waste. The Agency is proposing a two-year capacity variance to D003b (sulfide) wastewaters. This waste will be restricted from injection on May 8, 1992.

(5) *Chemical Precipitation*. Wastewater forms of D004, D005, D006, D008a, (lead-non-battery), D009a (inorganic mercury), D010, D011, F006, K031, P011, U134, and U151 represent those wastes best treated by chemical precipitation. As shown in Table III.B.2.(c), the 339 million gallons per year of available chemical precipitation are adequate to treat the quantity of hazardous waste annually deepwell-injected requiring this type of treatment. The Agency is proposing to restrict these wastes from underground injection on May 8, 1990.

(6) *Chromium Reduction and Chemical Precipitation*. Treatment standards based on chromium reduction and chemical precipitation are today being proposed for wastewater forms of D007, K002, K086, and U032. As shown in Table III.B.2.(c), the 48 million gallons per year of available chromium reduction and chemical precipitation are inadequate to treat the quantity of hazardous waste annually deepwell-injected requiring this type of treatment. Excluding D007, however, adequate capacity exists to treat the remaining wastes. The Agency is proposing to grant a two-year treatment capacity variance to D007, restricting this waste from underground injection on May 8, 1992.

#### (7) *Combustion of Liquids*.

Combustion of liquids is the BDAT for D001a (ignitables), D012, D013, D014, D015, D016, D017, K032, K097, P005, P020, P048, P050, P051, P057, P059, P069, P075, P102, U001, U002, U007, U008, U009, U012, U019, U031, U034, U037, U044, U045, U055, U056, U070, U074, U080, U103, U105, U106, U112, U113, U115, U118, U122, U133, U138, U140, U147, U154, U157, U159, U160, U162, U165, U169, U170, U185, U188, U192, U194, U197, U200, U210, U211, U219, U220, U226, U227, U228, U239, and U244. Although U041, U077, U083, U084, and U213 are also underground injected, because they will be treated on-site, their quantities are not included in required capacity for combustion of liquids. As shown in Table III.B.2.(c), the 233 million gallons per year of available capacity are adequate to treat the quantity of hazardous waste annually deepwell-injected requiring this type of treatment. These wastes will be restricted from underground injection on May 8, 1990.

(8) *Mercury Retorting*. Treatment standards based on mercury retorting are today being proposed for nonwastewater forms of D009 wastes. As shown in Table III.B.2.(c), the less than .01 million gallons per year of available mercury retorting capacity are inadequate to treat the quantity of this waste annually deepwell-injected requiring this type of treatment. The Agency is proposing to grant a two-year treatment capacity variance to the nonwastewater forms of D009, restricting this waste from underground injection on May 8, 1992.

(9) *Neutralization*. Neutralization is the treatment standard for D002 wastes. As shown in Table III.B.2.(c), the 15 million gallons per year of available neutralization capacity are inadequate to treat the quantity of hazardous waste annually deepwell-injected requiring



this type of treatment. The Agency is proposing to grant a two-year treatment capacity variance to the D002 wastewaters, restricting this waste from underground injection on May 8, 1992.

(10) *Stabilization*. For residuals containing D005, D006, D007, D008a (Lead-non-battery), D011, K002, P056, U002, U032, U055, and U188, the treatment standard being proposed is based on stabilization. As shown in Table III.B.2.(c), the 345 million gallons per year of available capacity are adequate to treat the quantity of hazardous waste residuals requiring this type of treatment. These residuals will be restricted from land disposal on May 8, 1990.

(11) *Treatment of Reactives and Chromium Reduction and Chemical Precipitation*. Treatment standards based on treatment of reactives and chromium reduction and chemical precipitation are today being proposed for D003 (explosives/reactives). As shown in Table III.B.2.(c), the less than 1 million gallons per year of available capacity are inadequate to treat the quantity of D003 (explosives/reactives) waste annually deepwell-injected requiring this type of treatment. The Agency is proposing to grant a two-year treatment capacity variance to this waste, restricting D003 (explosives/reactives) wastewaters from underground injection on May 8, 1992.

(12) *Wet-Air Oxidation*. K011, K013, and K014, represent all of the underground injected hazardous wastes addressed in today's rule that are best treated by wet-air oxidation. As shown in Table III.B.2.(c), the less than 1 million gallons of available capacity are inadequate to treat the quantity of K011 wastewaters, K013 wastewaters, and K014 wastewaters annually deepwell-injected requiring this type of treatment; therefore, EPA is proposing to grant a two-year treatment capacity variance to the wastewater forms of K011, K013, and K014, restricting these wastes from underground injection on May 8, 1992.

(13) *Wet-Air Oxidation And Carbon Adsorption*. For P058 wastewaters, treatment standards based on wet-air oxidation and carbon adsorption are being proposed today. As shown in Table III.B.2.(c), the less than 1 million gallons of available capacity are adequate to treat the quantity of P058 annually deepwell-injected requiring this type of treatment; therefore, EPA is not proposing to grant a national capacity variance for this waste.

(14) *Wet-Air Oxidation And Chemical Precipitation*. Treatment Standards based on wet-air oxidation and chemical precipitation are today being proposed for F019 wastewaters. As shown in Table III.B.2.(c), the less than 1 million gallons of available capacity are adequate to treat the quantity of F019

wastewaters annually deepwell-injected requiring this type of treatment; therefore, the Agency is not proposing to grant a two-year treatment capacity variance to F019 wastewaters, restricting this waste from underground injection on May 8, 1990.

Table III.B.2.(d) summarizes the wastes for which EPA is proposing to grant a two-year national capacity variance for underground injected wastes.

#### b. A Request for Data on Underground Injected K014 Nonwastewaters

EPA addressed the underground injection of K011 and K013 nonwastewaters in the June 8, 1989, Second Third final rule. In that rule, a two-year capacity variance was granted due to the lack of alternative incineration capacity (54 FR 26642). Action of K014 nonwastewaters was deferred so that the Agency could evaluate information on the composition, characteristics, and volumes associated with this waste. EPA currently has no information indicating that K014 nonwastewaters are being underground injected. The Agency specifically solicits information on this situation. EPA is proposing to restrict the underground injection of K014 nonwastewaters on May 8, 1990. EPA will take into account any data received before finalizing this date.

TABLE III.B.2.(d)—SUMMARY OF PROPOSED TWO-YEAR NATIONAL CAPACITY VARIANCE FOR UNDERGROUND INJECTED WASTES

Required alternative treatment technology	Waste code	Physical form
Alkaline Chlorination.....	D003 <sup>4</sup> .....	Wastewater.
Chemical Oxidation and Chemical Precipitation.....	D003 <sup>5</sup> .....	Wastewater.
Chromium Reduction and Chemical Precipitation.....	D007.....	Wastewater.
Mercury Retorting.....	D009.....	Nonwastewater.
Neutralization.....	D002.....	Wastewater.
Treatment of Reactives and Chromium Reduction & Chemical Precipitation.....	D003 <sup>6</sup> .....	Wastewater.
Wet-Air Oxidation.....	K011.....	Wastewater.
	K013.....	Wastewater.
	K014.....	Wastewater.
Wet-Air Oxidation and Carbon Adsorption, Biological Treatment and Carbon Adsorption, or Incineration.	Leachate <sup>7</sup> .....	Wastewater.

<sup>4</sup> D003 (Cyanides).

<sup>5</sup> D003 (Sulfides).

<sup>6</sup> D003 (Explosives, Reactives).

<sup>7</sup> Multi-Source Leachate.

c. *Deepwell Injected Multi-Source Leachate*. EPA is estimating that multi-source leachate containing both organic and inorganic constituents are currently underground injected. The Agency is proposing a treatment standard for multi-source leachate wastewaters based on wet-air oxidation followed by carbon adsorption, biological treatment followed by carbon adsorption, or incineration for wastes containing organic constituents, and on chemical

precipitation and filtration for wastes containing inorganic constituents. Because there is insufficient capacity to treat wastewaters based on these treatment technologies, EPA is proposing to grant a two-year variance for multi-source leachate that is underground injected.

d. *Mixed Radioactive Wastes*. EPA requires radioactive wastes mixed with RCRA regulated solvents and dioxins to meet LDRs and treatment standards

established for those solvents and dioxins when mixed with radioactive wastes. EPA currently has no information on mixed radioactive wastes that are underground injected; therefore, EPA is not proposing to grant a national capacity variance for these wastes. EPA is requesting comments on mixed radioactive wastes that are being underground injected.



### 3. Capacity Variances for Contaminated Soil and Debris

EPA is proposing today to grant an extension of the effective date for certain First, Second, and Third Third contaminated soil and debris for which the treatment standards proposed today are based on combustion, wet-air oxidation, vitrification, or mercury retorting. RCRA section 3004(h)(2) allows the Administrator to grant an extension to the effective date based on the earliest date on which adequate alternative capacity will be available, but not to exceed two years " \* \* \* after the effective date of the prohibition which would otherwise apply under subsection (d), (e), (f), or (g)." For First Third and Second Third wastes that have heretofore been subject to the "soft hammer" provisions (see section I.B.9) but for which treatment standards are being promulgated today, EPA is interpreting the statutory language " \* \* \* effective date of the prohibition that would otherwise apply to be the date treatment standards are promulgated for these wastes (i.e., May 8, 1989), rather than the date on which the "soft hammer" provisions took effect (i.e., August 8, 1988, and June 8, 1989, respectively)." EPA finds this the best interpretation for two reasons. Extensions of the effective date are based on the available capacity of the BDAT for the waste, so it is reasonable that such an extension begin on the date on which treatment standards based on performance of the BDAT are established. Furthermore, EPA does not intend, in effect, to penalize generators of First Third and Second Third wastes by allowing less time (i.e., 28 months and 37 months, respectively) for the development of needed capacity, while generators of Third Third wastes in the same treatability group are allowed the maximum 48 months (assuming capacity does not become available at an earlier date). The proposed capacity extension would therefore commence for First, Second, and Third Third wastes on May 8, 1990, and would extend (at maximum) until May 8, 1992.

For the purpose of determining whether a contaminated material is subject to this capacity extension, soil is defined as materials that are primarily geologic in origin, such as silt, loam, or clay, and that are indigenous to the natural geological environment. In certain cases, soils will be mixed with liquids or sludges. EPA will determine on a case-by-case basis whether all or portions of such mixtures should be considered soil (52 FR 31197, November 8, 1986).

Debris is defined as materials that are primarily non-geologic in origin, such as grass, trees, stumps, shrubs, and man-made materials (e.g., concrete, clothing, partially buried whole or crushed empty drums, capacitors, and other synthetic manufactured items).

Debris may also include geologic materials (1) identified as not indigenous to the natural environment at or near the site, or (2) identified as indigenous rocks exceeding a 9.5mm sieve size that are greater than 10 percent by weight, or that are at a total level that, based on engineering judgment, will affect performance of available treatment technologies. In many cases, debris will be mixed with liquids or sludges. EPA will determine on a case-by-case basis whether all or portions of such mixtures should be considered debris.

Analysis of the TSDR Survey data indicated that a volume of approximately 17 million gallons of soil contaminated with wastes subject to this proposal were land-disposed in 1986. However, the Superfund remediation program has expanded significantly since that time. Plans for remediation at Superfund sites indicate that the excavation of soil and debris requiring treatment (including incineration and subsequent land disposal) will be far greater in 1990 than in 1986. Because of the major increase in the Superfund remediation program, EPA believes that capacity is not adequate for combustion of Third Third contaminated soil and debris. In addition, the TSDR Survey indicates that inadequate capacity exists for soils requiring vitrification, mercury retorting, and wet-air oxidation. A two-year extension of the effective date is proposed for Third Third contaminated soil and debris for which BDAT is combustion, vitrification, mercury retorting, or wet-air oxidation.

EPA is also proposing to grant a two-year national capacity variance to all soil and debris contaminated with mixed RCRA/radioactive waste. EPA has estimated that insufficient treatment capacity exists to handle soil and debris contaminated with mixed radioactive waste.

EPA notes that if soil and debris are contaminated with Third Third prohibited wastes whose treatment standard is based on incineration and also with other prohibited wastes whose treatment standard is based on a non-combustion type of technology, the soil and debris would remain eligible for the national capacity variance. This is because the contaminated soil and debris would still have to be treated by

some form of combustion technology that EPA has evaluated as being unavailable at present. However, there is one exception to this principle. If the soil and debris are contaminated with a prohibited waste (or wastes) that is no longer eligible for a national capacity extension, such as certain types of prohibited solvent wastes, then the soil and debris would have to be treated to meet the treatment standard for that prohibited waste (or wastes). Any other interpretation would result in EPA's extending the date of a prohibition beyond the dates established by Congress, and therefore beyond EPA's legal authority.

### C. Characteristic Wastes

#### 1. General Considerations

In today's rule, EPA is proposing treatment standards for those wastes which exhibit one or more of the following characteristics: ignitability, corrosivity, reactivity or EP toxicity (40 CFR 261.21-24). For the purpose of setting BDAT treatment standards, each characteristic waste is subdivided into subcategories which correspond to waste treatability groups. For example, an ignitable characteristic waste may be subcategorized as an ignitable liquid, ignitable reactive, oxidizer or ignitable gas.

EPA is developing a new toxicity characteristic, known as the toxicity characteristic leaching procedure (TCLP), that is scheduled for promulgation in late 1989. Upon its effective date, this revised characteristic will include a number of additional organic hazardous constituents, and a new extraction protocol will replace the current extraction procedure (EP). The revised toxicity characteristic will include the same 14 hazardous constituents (six pesticides and eight toxic metals) that are now regulated under the existing EP toxicity characteristic. EPA is proposing that the BDAT levels for wastes that exhibit EP toxicity for these 14 hazardous constituents remain the same when the TCLP replaces the EP toxicity characteristic since the extent of achievable treatment should not change.

The Agency received several comments in response to its solicitation in the Second Third rulemaking regarding treatment standards for characteristic wastes. These comments addressed two general areas. First, several commenters questioned the Agency's assertion that the hard hammer provision applies to characteristic wastes. The Agency continues to believe that the statutory



language is unclear, but that the legislative history for HSWA clearly indicates that wastes which exhibited a characteristic of hazardous waste on November 8, 1984 are subject to the hard hammer provision. The issue is of no practical significance in any case, since EPA is promulgating treatment standards for all hazardous wastes that exhibited characteristics as of the date of enactment of HSWA.

Second, several commenters also questioned the use of a "No Land Disposal" treatment standard in any of its forms for characteristic wastes. EPA is not using this standard for characteristic wastes in the proposal.

## 2. Treatment Below Characteristic Levels

EPA is today proposing standards for certain characteristic wastes which require treatment below the characteristic level. The issues concerning this approach are discussed below.

The threshold question in establishing treatment standards for characteristic wastes that are prohibited from land disposal is whether the treatment standard can be established at a level that is lower than the characteristic level. The legal argument would be that the characteristic level itself imposes a jurisdictional limitation on the extent of treatment because section 3004(m) applies only to wastes that are hazardous, and by EPA's regulations, wastes that no longer exhibit a characteristic are not hazardous wastes.

An alternative reading, however, is that once wastes become subject to section 3004(m), they remain subject to the requirements of that section until the section 3004(m) standard is satisfied. This is in fact the most literal reading of section 3004(m). In the context of toxic characteristic hazardous wastes, this alternative reading also supports the statutory goals and policies of seeking to reduce the uncertainties inherent in the land disposal of hazardous waste by substituting a system whereby hazardous wastes are pretreated in such a way that minimizes threats to human health and the environment associated with land disposal. See RCRA sections 1002(b)(7), 3004 (d), (e), (f), (g), and (m).

There are a number of differences between characteristic wastes and listed wastes that make it important to consider the issue of further treatment for characteristic wastes. First, the EP toxicity characteristic is defined by levels higher than the health-based levels that have been the basis for delisting many hazardous wastes. The Agency has always stated that the EP toxicants' concentrations are levels at

which a waste clearly presents a substantial hazard, and that the lower levels also may pose a hazard (see, e.g., 45 FR 33066, May 19, 1980). Thus, in most cases, treatment below the characteristic level would clearly result in further minimization of threats to human health and the environment. Second, delisting is a waste-specific process that allows EPA to consider a number of factors, including concentrations of all Appendix VIII constituents in the waste. On the other hand, characteristic wastes are no longer hazardous when they stop exhibiting a single property or fall below a constituent concentration level. Thus, only under a broad reading of section 3004(m) could EPA address treatment for all Appendix VIII constituents in characteristic wastes, and thus reduce the prohibited waste's toxicity and mobility in a way that further minimizes the threat to human health and the environment. These features of the characteristic waste designation compel the Agency to carefully evaluate the reach of Agency authority under section 3004(m).

EPA believes one permissible construction of the statute is that waste which is hazardous at the point of generation and is destined for land disposal (i.e. a prohibited hazardous waste) remains subject to the requirements of section 3004(m) regardless of its concentration at any subsequent time, or at least must be treated to the section 3004(m) level to avoid violation of section 3004(m). Indeed, this construction is a necessary approach to vindicate the Congressional admonition against dilution in lieu of treatment. See Section III(D) below. Once subject to section 3004(m), such wastes must be treated by methods which substantially reduce toxicity and minimize threats to human health and the environment.

Thus, EPA believes it is a permissible construction of RCRA that Congress did not intend to curtail treatment under this standard by the definitional provisions relating to the term "hazardous waste" in 40 CFR part 261. Indeed, the authority in section 3004(m) to subject characteristic wastes to treatment methods contemplates treatment to levels below the characteristic level, since treatment methods—for example, combustion—often cannot be neatly curtailed at the characteristic level. EPA has also stated in other contexts that Subtitle C regulations can continue to apply to management of wastes that no longer exhibit a characteristic. For example, the clean closure standards for regulated units that hold characteristic wastes require removal of hazardous

constituents even if the waste no longer exhibits a characteristic. See 53 FR 8705 (March 19, 1987). Thus, the continued regulation of such units under Subtitle C depends on the degree of environmental hazard but not on the continued presence of "hazardous waste". EPA also believes the recent decision in *Hazardous Waste Treatment Council v. U.S. Environmental Protection Agency*, No. 86-1657 (D.C. Cir. September 15, 1989) supports the view that EPA has considerable flexibility in setting standards under section 3004(m) and that section 3004(m) can operate independently of other RCRA provisions which do not have the same ultimate standard.<sup>1</sup>

Significant technical differences and gaps in data, however, can make the task of utilizing a more expansive view of EPA authority under section 3004(m) for characteristic wastes—i.e., developing treatment standards that minimize threats below characteristic levels, or that address other toxic constituents—very difficult at this time. The task is not the same as for listed wastes. A listed waste comprises relatively discrete waste types. EPA often segregates listed waste into treatability groups to set section 3004(m) standards. Wastes under a single characteristic designation, however, can cover an enormous range of waste matrices. Segregating the matrices into treatability groups is a difficult task even when considering treatment of only the single characteristic property, let alone the treatment of other BDAT list constituents. Moreover, specifying the lowest achievable level that

<sup>1</sup> EPA has, thus far, set section 3004(m) performance standards for listed hazardous wastes based on the limits of demonstrated available technology, and not on standards adopted under other statutory standards and provisions. This approach was challenged by industry petitioners in *Hazardous Waste Treatment Council v. U.S. Environmental Protection Agency*, No. 86-1657 (D.C. Cir. September 15, 1989). In this recent opinion, the Court found EPA's approach to be a permissible construction of RCRA. Specifically, the Court held that section 3004(m) requires EPA to set treatment standards so that "threats to human health and the environment are minimized." The Court found that this standard provides EPA flexibility to establish treatment standards that need not be identical to other regulatory decisions establishing health-based screening levels pursuant to different statutory standards.

Although the Court found EPA's approach to be permissible, it also held that EPA had not adequately articulated a rationale for the Agency's policy choice between a technology-based regime and one which capped treatment levels by risk-based screening levels. The Court thus remanded the rule (leaving treatment standards in place) and directed EPA to articulate the rationale behind any policy choice in this area. EPA is thoroughly studying the Court's decision and its own policies to respond to the Court's remand.



minimizes threats may vary from matrix to matrix. As more data are gathered, the Agency may be in a better position to consider more constituents, different treatability groups, and more specific or lower treatment standards.

There are also significant technical and policy questions which may differentiate the limits of treatment for wastes with the properties of ignitability, corrosivity, and reactivity, as opposed to those with specific concentrations of hazardous constituents. The definitions and units of measurement for the properties ignitability, corrosivity, and reactivity are different from the measurement of EP toxic constituents. For example, EP toxic wastes are defined by a concentration level for a given constituent. Wastes with the characteristic of ignitability, on the other hand, are defined by a flash point below 60 degrees Celsius, and other narrative descriptions. See 40 CFR 261.21. Similarly, wastes with the characteristic of reactivity are described by narrative standards. See 40 CFR 261.23. It is easy to describe a lower concentration as a potentially more protective standard. Changing narrative standards, on the other hand, would involve considerably different technical and policy considerations.

In today's proposal, EPA is both proposing methods of treatment and proposing concentration levels for characteristic wastes. Where EPA is proposing a constituent concentration level it is based on the lowest achievable level without regard to the characteristic level. Where EPA is proposing methods of treatment for certain characteristic wastes the Agency believes that these treatment methods, such as incineration of organics or stabilization of metals, will also treat some of the other BDAT list constituents which may be present. In addition, if a waste is identified as carrying more than one characteristic, it would need to meet each treatment standard or utilize each method.

In light of the above discussion, the Agency requests several types of comments. First, commenters should carefully read the technical background documents and comment on what they believe to be the lowest achievable treatment level. Second, commenters should comment on any legal or policy reasons to curtail the treatment requirement at the characteristic level. It may be that the policy considerations make setting standards lower than the characteristic level difficult in light of EPA's current regulations and enforcement mechanisms. These

regulations may simply need revision. Thus, EPA may consider providing a final rule which does not go below characteristic levels as an interim approach until EPA can fully address any significant implementation problems. Commenters should address the validity of a final rule which does not require treatment below characteristic levels as a potential interim approach. Finally, commenters should suggest levels beyond which there is no further minimization of risks to human health and the environment.

For some of the EP toxic wastes, the Agency is considering a treatment level higher than the EP toxic level. In this case, if a waste is treated to meet BDAT, but still exceeds the characteristic level, the waste is still a RCRA hazardous waste and remains subject to subtitle C regulation. In the event treatment reduces the toxic constituent concentration to below the characteristic level, and the waste does not exhibit any other characteristic, the waste is no longer considered a RCRA hazardous waste.

### 3. Overlap of Standards for Listed Wastes That Also Exhibit A Characteristic

Whichever option EPA chooses, further issues remain regarding situations where a waste could be identified for more than one characteristic waste code, and situations where a listed waste also could be identified for one or more characteristic waste code. In the event a waste could carry more than one characteristic waste code, the Agency proposes that the waste must be treated to meet the treatment standard for each characteristic. EPA believes this reading satisfies the goal of significantly reducing waste toxicity or mobility for the untreated constituent, and consequently satisfies the mandate of section 3004(m).

If a listed waste could also be identified for one or more characteristic waste codes, EPA proposes that the waste would have to be treated to meet the treatment standard for each (of those) waste code(s), with one exception. Under that exception, if the relevant constituents or narrative characteristics are specifically addressed in the treatment standard for the listed waste, then the standard for the listed waste operates in lieu of the standard for the relevant characteristics.

Thus, if nonwastewater F006 is EP toxic for lead, it would not have to be treated to meet the EP toxicity lead standard because the treatment standard for nonwastewater F006 already contains a standard for lead. On

the other hand, if the F006 waste were EP toxic for mercury, it would have to be treated to meet the mercury EP toxicity treatment standard, since mercury is not addressed in the F006 standard. The general principle EPA is proposing is that the more specific treatment standard takes precedence. Treatment standards for listed wastes are the more specific because they reflect the Agency's waste-specific determination. This is the same principle EPA adopted with respect to California list wastes that are covered by another treatment standard, an analogous situation. See 52 FR at 25773, 25776 (July 8, 1987). At the same time, when a listed waste exhibits a characteristic that is not addressed by the listed waste's treatment standard, EPA believes it necessary for that characteristic to be treated to meet the characteristic treatment standard. To ignore the characteristic would mean that the Third Third prohibition for that characteristic is being ignored, and that with respect to that constituent, the waste's toxicity or mobility is either not being reduced or not being minimized. Since this outcome would satisfy neither the statutory language nor its policy, EPA is proposing to require treatment. (For the same reason, EPA would also require treatment of listed wastes that are ignitable, reactive, or corrosive to address the characteristic property.) As with the California list wastes, EPA would apply this principle at the point of generation, since otherwise the treatment standard for the characteristic constituent could be ignored by removing the characteristic (assuming the Agency ultimately adopts an approach whereby treatment standards for characteristic hazardous wastes are lower than the characteristic level). See 52 FR at 25766.

EPA notes that under this approach, waste generators must determine not only whether their waste falls under a prohibition for a listed waste, but also a prohibition for a characteristic. EPA is not proposing any amended language to § 268.7(a) to require generators to make this examination (*i.e.*, determining if the listed waste also exhibits a characteristic) because the existing regulatory language requires the generator to determine the "appropriate" treatment standards (*i.e.*, those that are applicable). EPA, however, solicits comment on whether it should promulgate explicit regulatory language in § 268.7 (or perhaps in § 262.11) to address this issue.

Finally, EPA is proposing to implement one further principle with respect to potential overlap of treatment



standards for listed wastes that also exhibit a characteristic. This is where the listed waste does not address a characteristic constituent or property, disposal of a waste which at the point of disposal exhibits a characteristic is prohibited unless the treatment level for that characteristic component is above the characteristic level. This approach is again essentially the same that EPA adopted for the analogous situation involving California list wastes (see 52 FR at 25767), and is needed to insure that the statutory prohibition against disposal of characteristic hazardous wastes is not violated. Although EPA does not anticipate that this type of situation will arise often, if it should, EPA believes that further treatment to address the characteristic would normally be feasible, and therefore necessary to minimize threats to human health and the environment.

EPA solicits comment on the best implementation mechanism for ensuring against disposal of these characteristic wastes. The Agency's preference would be for treatment facilities to test, or otherwise determine that residues sent to disposal have not somehow acquired a characteristic not previously present, and certify that the wastes have not done so.

The following examples illustrate the principles involved in the paragraphs above:

*Example 1.* Generator A generates a listed, prohibited waste "A" which has a wastewater standard for lead of 1 ppm in the TCLP extract. Waste "A" is also EP toxic for lead, and the treatment standard for lead characteristic wastes (for the sake of this example) is .5 ppm in the TCLP extract. The treatment residue from waste "A" is EP toxic for chromium, a constituent not addressed by the standard for the listed waste "A".

The treatment standard for lead in the wastewater is 1 ppm, because this is the more specific standard for lead in the waste. However, the treatment residue must be treated to meet the treatment standard for chromium before it can be disposed, since there is no more specific treatment standard for that constituent.

*Example 2.* Generator B generates a listed waste for which the nonwastewater standard for mercury is 1 ppm. The waste exhibits the EP toxicity characteristic for mercury, and the treatment standard for that characteristic (for the sake of this example) is a specified treatment method.

The more specific treatment standard would still control, even though a treatment method is the standard for the characteristic. Thus, this waste would

have to be treated to below 1 ppm, the numerical limit.

EPA solicits comments on the legal and policy implications of the above approach. Moreover, EPA requests comments which discuss mechanisms which can provide for enforcement and monitoring of the above scheme.

#### *D. Mixed Hazardous/Radioactive Wastes*

On July 3, 1986 (51 FR 4504), EPA determined that mixed wastes (waste that satisfies the definition of radioactive waste subject to the Atomic Energy Act and contains hazardous waste that is either listed as a hazardous waste in Subpart D of 40 CFR part 261 or exhibits any of the hazardous waste characteristics identified in Subpart C of 40 CFR part 261) were subject to the RCRA regulations. This created a dual regulatory framework for mixed wastes because the hazardous component would be regulated under RCRA, and the radioactive component would be regulated under the Atomic Energy Act (AEA). RCRA applies to all radioactive mixed waste, independent of the classification of the radioactive component as low level, high level, or transuranic, but only to the hazardous portions of the mixed waste stream.

Statutorily and administratively, the management of the radioactive component differs. While EPA may develop ambient health and environmental standards, the specific standards for radioactive material management developed under the Atomic Energy Act are administered through the Department of Energy (DOE) for government-owned facilities, and through regulations of the Nuclear Regulatory Commission (NRC) for commercially owned facilities.

There are approximately 30 DOE installations that generate mixed waste. Of these, 13 generate the majority of waste containing low-level, high-level, and transuranic radionuclides. These installations have complex and diverse waste management facilities and generally have RCRA interim status. The site audits, sampling, and analytical studies that have been performed by DOE at these sites provide some information to characterize the mixed wastes.

Approximately 26,000 NRC licensees, including hospitals, universities, and nuclear power plants, generate mixed waste. The radioactive component of this mixed waste primarily consists of low-level radionuclides. The principal RCRA hazardous constituents include solvents, lead, chromium, and other hazardous constituents generated by the

biomedical and nuclear power industries. It is estimated that commercially generated mixed waste constitutes about 2 to 30 percent of the low-level radioactive waste generated annually.

There are not adequate government or commercial facilities permitted by both NRC and EPA to dispose of mixed waste. As a result, much of the mixed waste is being managed by either recycling (e.g., mixed wastes containing lead) or incineration, (e.g., scintillation cocktails containing solvents). Most mixed waste is being stored by generators, who require a RCRA permit for storage beyond 90 days.

As noted in section III-B above, after reviewing data collected in the National Survey of Hazardous Waste Treatment, Storage, Disposal, and Recycling Facilities, the Agency has determined that there is inadequate nationwide capacity available for mixed wastes. Therefore, EPA is proposing to grant a two-year national capacity variance under section 3004(h)(2) for the scheduled wastes. Since adequate treatment capacity is not expected to be available immediately, these wastes will continue to be stored. Mixed wastes containing listed hazardous waste are expected to be generated in small volumes. Larger volumes of mixed wastes which contain spent solvents and EP toxic metals, such as lead and chromium, are expected to be generated. Mixed wastes containing spent solvents or dioxins, or that are California list wastes, are still subject to the applicable treatment standards once the effective date has passed. For mixed wastes containing certain spent solvents and dioxins, or that are California list wastes, the Agency may also consider petitions for one-year extensions of the effective date. HSWA provides a maximum of two one-year extensions under section 3004(h)(3). Such extensions are determined on a case-by-case basis after consultation with appropriate State agencies, and public notice and comment.

The Agency is performing studies to characterize the mixed waste volumes, characteristics, and treatment options. The Agency also expects to receive treatment data for mixed waste from DOE for review. DOE has been studying how to treat, store, and dispose of waste at its sites. Once received, such data will be made available for public notice and comment.

#### *E. Applicability of Today's Proposed Rule to Mineral Processing Wastes*

Section 3001(b)(3)(A)(ii) of RCRA excludes from the hazardous waste



regulations (pending completion of studies by the Agency) solid wastes from the extraction, beneficiation and processing of ores and minerals. On September 1, 1989, EPA published a final rule in the *Federal Register* (54 FR 36592) that narrowed the scope of this temporary exclusion as it applies to mineral processing operations to 25 enumerated wastes that meet the exclusion criteria of "high volume/low hazard," as specified in the September 1 rule. EPA determined that five specific mineral processing wastes clearly remain within the scope of the exclusion, and that 20 additional specified mineral processing wastes remain within the exclusion, pending collection of further volume and hazard data. All previously excluded mineral processing wastes, other than these 25 specified wastes, that exhibit one or more of the characteristics of hazardous waste will no longer be excluded from the hazardous waste regulations when the final rule becomes effective. (On September 25, 1989 (see 54 FR 39298-39318), EPA proposed to remove an additional 7 of these wastes from the exclusion based on additional volume and/or hazard data.)

EPA believes that the wastes are "newly identified" for the purposes of determining applicability of the land disposal prohibitions. Although technically the wastes are not being identified by a new characteristic, they are being brought into the subtitle C system after the date of enactment of the HSWA on November 8, 1984. The clear sense of RCRA section 3004(g)(4) is that wastes brought into the system after the 1984 RCRA amendments are to be prohibited from land disposal under a potentially different schedule than those wastes that were hazardous on the date of enactment of HSWA, and are not to be subject to the statutory hard hammer. Because these wastes are newly identified, the Agency must develop treatment standards for them within six months of their being identified as hazardous wastes (RCRA section 3004(g)(4)(C)).

However, as stated above, these wastes are hazardous because they exhibit one or more of the characteristics of hazardous waste. Today's rule proposes treatment standards for characteristic wastes. The question, therefore, is whether the treatment standards for characteristics should apply to these mineral processing wastes recently determined not to fall within the Bevill exclusion. Put another way, although as newly identified wastes they are not subject to the hard hammer, EPA still has the choice of

whether or not to apply the treatment standards for characteristic wastes to them at this time.

The Agency has not yet performed the technical analyses necessary to determine if the treatment standards proposed today as BDAT for EP toxic hazardous wastes can be achieved in treating the various mineral processing wastes. Therefore, EPA is proposing that these newly identified mineral processing wastes *not* be subject to the BDAT standards proposed today for characteristic hazardous wastes. The Agency plans to study the mineral processing wastes in the near future to determine BDAT for these newly identified hazardous wastes. EPA also solicits comment on whether the BDATs proposed today for the EP toxic metals are appropriate for the newly identified mineral processing wastes. Commenters should provide data showing whether particular mining wastes can be treated to meet the proposed standards.

There are circumstances when newly identified mineral processing wastes can, however, be subject to existing hazardous waste prohibitions. Thus, if the mineral processing waste is mixed with other prohibited wastes (*i.e.*, any prohibited solvent, dioxin, First or Second Third hazardous waste), it becomes subject to the prohibition for the prohibited waste with which it is mixed. EPA also is soliciting comment on the applicability of California list prohibitions to newly identified and listed hazardous wastes. See section III.M below.

Whether any of these prohibitions would have immediate regulatory effect would be determined by the authorization status of the State in which the waste is managed. Because the final rule removing wastes from the scope of the Bevill exclusion is not being adopted pursuant to HSWA, it does not take effect immediately in authorized States. Thus, in these States, these mineral processing wastes would only be hazardous wastes if they are included within the scope of the State's authorized program. If they are not, they would not be hazardous wastes until an amended State's program including them is authorized. Only after authorization would the land disposal prohibitions apply in that State. These mineral processing wastes would be hazardous wastes in unauthorized States as soon as the rule removing them from the exclusion becomes effective. At that time, any land disposal prohibitions that apply to them also would take effect.

#### *F. Clarification of "P" and "U" Solid Wastes*

EPA is proposing amendments to clarify the existing language of 40 CFR 261.33. The first amendment involves § 261.33(c), a provision that lists residues from containers and inner liners of containers that have held commercial chemical products listed in § 261.33(e). This language is partially in error in that it does not also include residues and inner liners contaminated with the § 261.33(f) materials. All of the other provisions in 40 CFR 261.33 refer to both § 261.33 (e) and (f) wastes, and there is no reason that § 261.33(c) should not as well. The omission results in fact from an oversight, and is not based on any choice by the Agency.

EPA is also proposing a change to clarify when contaminated soil, water, and spill debris contaminated with 40 CFR 261.33 (e) and (f) materials can be solid wastes. Ordinarily, § 261.33 materials are solid wastes only when "discarded" by being abandoned, or by being burned or placed on the land when this is not the materials' normal manner of use (see first sentence of § 261.33). Thus, these materials are not normally classified as RCRA solid wastes when they are recycled. See § 261.2(c) and Table 1. Contaminated spill residues, water, and debris resulting from clean-up actions normally result from the abandonment of § 261.33 materials that have been spilled on land or water, remained there, and eventually necessitate clean-up. Certainly, the reasons behind the statement that § 261.33 materials are not solid wastes when recycled—their near product-like status due to being unused commercial chemical products and their easy means of recycling—do not apply to contaminated soils and other contaminated clean-up residues covered by § 261.33(d). Not only are these materials difficult to recycle and not product-like, but delaying their classification as solid wastes to the moment when a determination as to recycling is made could encourage uncontrolled or haphazard spilling of these materials onto land or water, and discourage their clean-up.

Although such spilled materials already may be considered to be abandoned, the Agency is proposing to amend the rules to make clear that spill residues, and other materials covered by § 261.33(d), are considered to be solid wastes. There could conceivably, however, be some circumstances when a material can be spilled and the contaminated soil or water matrix could be quickly returned to production. EPA



believes that some allowance ought to be made for such situations to avoid interfering with production-related spills that can be returned to the process, or otherwise put to direct use, in a short time. The maximum period for which a spill residue could be returned to the process would appear to be 90 days. This is the maximum length of accumulation time the Agency has recognized, in other contexts, as providing a legitimate accommodation between avoiding disruption with production decisions versus the environmental protection afforded under the RCRA permit process. See 40 CFR 262.34 and 45 FR 12730 (February 26, 1980). Thus, under the clarified proposed regulation, unless contaminated soils or other § 261.33(d) residues are recycled within 90 days of the spill, they would be considered to be solid wastes even if there is a bona fide intent to recycle. Absent a bona fide intent to recycle, the materials are solid wastes immediately upon being spilled because they have been abandoned. The person claiming that spill residues are not solid wastes would have the burden of showing that the spill will be recycled and that recycling has occurred within the specified period (see 40 CFR 261.2(f)—the Agency's *prima facie* case is established by the fact of the spill itself, which is a type of disposal). In addition, any § 261.33(d) material that is not recycled is being disposed, thus triggering all of the Subtitle C requirements for hazardous wastes that are disposed. See 50 FR 28712-713 (July 15, 1985).

EPA further solicits comment on whether the spill residues should automatically continue to be considered solid wastes if they are removed after 90 days for legitimate recycling (even if the spill area itself would be a regulated unit after that time). For example, if the spill residue were to be used as a feedstock in an industrial process, then should the spill residue still be considered to be a solid waste once it is removed? (Cf. 40 CFR 261.1(c)(8), final sentence, noting that materials that are accumulated speculatively do not necessarily remain solid wastes once they are removed from accumulation.) EPA also solicits comment on whether such spill residues should be considered to be inherently waste-like pursuant to § 261.2(d), in which case they would remain solid wastes regardless of their method of subsequent recycling.

#### G. Determining When Dilution Is Permissible

EPA believes that its existing rules regarding impermissible dilution of prohibited wastes require further

clarification when applied to situations involving aggregation for centralized treatment of more than one waste. By way of background, current regulations provide that wastes that are prohibited from land disposal may not be diluted " \* \* \* as a substitute for adequate treatment to achieve compliance with [a treatment standard] \* \* \*, to circumvent the effective date of a prohibition \* \* \*, to otherwise avoid a prohibition \* \* \*, or to circumvent a [statutory] prohibition. \* \* \* " (see § 268.3). Section 268.41(b), which was added as a means of making this dilution prohibition workable (see 51 FR 40623, Nov. 7, 1986), states that " \* \* \* when wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern."

EPA has further stated in preambles that not all dilution of prohibited wastes is impermissible, and acknowledged a number of times that dilution that occurs as a necessary part of the process to treat a waste is permissible. 51 FR 40592 (Nov. 7, 1986); see also 54 FR 26601-602 (June 23, 1989). EPA has also indicated that certain forms of treatment that result in phase separations that make each phase easier to treat can be permissible forms of treatment. 53 FR 31145 (August 17, 1988) and 54 FR 26603, 26612 (June 23, 1989).

The Agency's concern, echoing Congress' concern in indicating that dilution to avoid proper treatment was impermissible (H.R. Rep. No. 198, Part I, 98th Cong., 1st Sess. 38 (1983)), is that individual prohibited wastes not be mixed with larger volumes of other wastes (whether prohibited or not) to meet treatment standards without undergoing treatment that substantially reduces the prohibited wastes' toxicity or mobility. Another of the Agency's objectives is that heavily concentrated streams amenable to a particular type of treatment technology should be segregated for treatment by that technology rather than being aggregated for less appropriate treatment that does not substantially reduce the waste's toxicity or mobility. See 52 FR 25766, middle column (July 8, 1987).

Consequently, it appears to the Agency that any dilution that fails to meet the standard in § 3004(m) of substantially reducing the prohibited waste's toxicity or mobility is impermissible. To achieve this objective, the Agency believes that there must be some actual reduction in the toxicity or mobility of at least one BDAT constituent in each prohibited waste

that is treated, to the extent that these constituents are present in initial concentrations that exceed the treatment standard for that prohibited waste. Further, with respect to organic constituents, "reduction in toxicity" means actual removal of or chemical change to the constituent.

The following examples illustrate how the Agency would apply this interpretation:

**Example 1.** Facility A mixes a small volume of prohibited nonwastewater containing five percent TOC with a larger volume of wastewaters containing less than one percent TOC. The wastes all contain organic BDAT constituents, but the only treatment the mixture undergoes is for removal of total suspended solids, not for removal of the organic constituents. The treatment system generates a nonwastewater and wastewater treatment residue. The nonwastewater is treated further to achieve BDAT. The wastewater meets the treatment standard for wastewaters.

EPA views this situation as involving impermissible dilution because the treatment system is not removing BDAT constituents, but simply diluting them, such that they are below a BDAT level. Moreover, the initial nonwastewater ordinarily would be amenable to direct treatment and need not be mixed. The result is simply the dilution of the initial nonwastewater. Cf. 53 FR 31145 (Aug. 17, 1988) (" \* \* \* a facility is not allowed to dilute or perform partial treatment on a waste in order to switch the applicability of a nonwastewater standard to a wastewater standard or vice versa."

**Example 2.** Facility B generates a prohibited nonwastewater that is a bi-layered waste with an organic phase and a liquid phase. The BDAT constituent in the waste is cyanide. These phases can be separated by skimming the organic phase, after which the nonwastewater organic phase is amenable to incineration treatment and the wastewater phase to wastewater treatment. Instead of doing so, generator B mixes the waste with other wastewaters and generates a wastewater that meets all cyanide treatment standards, although cyanide is not being removed by the treatment system.

This example also involves impermissible dilution due to the lack of removal of the BDAT constituent.

EPA solicits comment on this issue, and asks that commenters provide specific examples where they believe that aggregation for centralized treatment is legitimate even if some dilution is involved. EPA also notes, as



recently explained in a correction notice to the First Third final regulation, that the dilution prohibition in § 268.3 generally only applies to prohibited wastes disposed via a prohibited form of land disposal. See 54 FR 36967-36972 (September 6, 1989). In applying this principle, one looks to the treatability group that is generated and ascertains whether that treatability group is destined for management in a prohibited form of land disposal. For example, if a generator generates a hazardous wastewater that is being mixed in tanks before discharge to a POTW or to waters of the United States, the wastewater is not a prohibited hazardous waste, and the dilution prohibition would not apply to it. (If non-wastewaters are derived from the management of the wastewater, those non-wastewaters are prohibited hazardous wastes because they are destined for a prohibited form of land disposal.) On the other hand, if the wastewater were to be managed in any type of surface impoundment before its discharge, it would be a prohibited hazardous waste, and the dilution prohibition would apply.

Of course, even where one BDAT constituent is treated to reduce its toxicity or mobility, impermissible dilution might occur. For example, a waste with treatable concentrations of metals as well as extremely high concentrations of hazardous organics could be mixed with large volumes of other metal-bearing wastes for metals treatment. To the extent that the high concentrations of organics are diluted by this treatment to below treatable levels, this would constitute impermissible dilution if there is an appropriate organics treatment technology that could be applied prior to metals treatment. In this example, there is an actual reduction in the toxicity or mobility of one BDAT constituent, but dilution to avoid treating organics.

Thus, the requirement that one BDAT constituent be treated so as to substantially reduce its toxicity or mobility is a minimum requirement in all cases. It should not be interpreted as validating all other dilution that may occur.

#### H. Other Dilution Issues

The second major issue regarding dilution on which EPA is soliciting comment is whether dilution can be used as a means of supplanting a section 3004(m) treatment standard by being used to render a prohibited waste non-hazardous in lieu of actually treating the prohibited hazardous waste prior to land disposal. The issue is most pressing with respect to wastes that

exhibit a characteristic of hazardous waste, but can also arise with respect to listed wastes for which delisting is sought.

EPA believes that the standards of section 3004(m) apply to all wastes destined for a prohibited form of land disposal. It is not permissible to dilute a waste to render it nonhazardous in lieu of proper treatment under section 3004(m) (unless dilution is a part of proper treatment under section 3004(m)).

With respect to dilution of characteristic hazardous wastes, EPA is clearly given authority to establish treatment standards for hazardous wastes that exhibit a characteristic. RCRA section 3004(g)(4)(C). This authority includes prescribing methods of treatment for characteristic hazardous wastes. Section 3004(m) (1) and (2). Yet this authority would be largely meaningless if a person could dilute the waste to remove the characteristic rather than treating it (even assuming EPA determines that treatment standards are bounded jurisdictionally by characteristic levels). The same reasoning holds true for listed wastes, except it is more difficult to remove listed wastes from the subtitle C system because delisting requires an administrative determination. Nevertheless, the possibility exists for evading a treatment standard for a listed waste by diluting the waste and seeking a delisting.

The legislative history of HSWA clearly indicates Congress' intention that dilution not be used as a substitute for treatment standards of the land disposal restrictions program promulgated pursuant to RCRA section 3004(m). The legislative history further indicates that a prohibition of this type of dilution "is particularly important where regulations are based on concentrations of hazardous constituents." (H.R. Rep. No. 198, Part I, 98th Cong., 1st Sess. 38 (1983)). This is consistent with the overall policy of requiring hazardous wastes to be treated before they are land disposed.

EPA therefore is of the view that it is illegal to render a prohibited waste non-hazardous by engaging in impermissible dilution. An important issue raised by this proposal is the relation of the section 3004 treatment standards and corollary dilution prohibition and the rules implementing RCRA section 3001 that define a hazardous waste. These rules do not prohibit dilution to remove a hazardous waste characteristic or to achieve a delisting level. See §§ 261.3(d)(1) and 260.22 (c) and (d). EPA does not intend to address today the broad question about whether

dilution should ever be allowed as a means of rendering a waste non-hazardous. (Were the Agency to regulate such dilution, it might do so based on concerns about mass loadings of hazardous constituents and the statutory preference for proper treatment of hazardous wastes, as well as the statutory goal of waste minimization.) Rather, today's proposal is limited to a context where the land disposal prohibitions apply and is intended to preserve the integrity of treatment standards for prohibited hazardous wastes.

Consequently, under the rules proposed today, if an impermissible form of dilution occurs that renders a toxic hazardous waste non-hazardous, the act of dilution would be illegal but the waste would be non-hazardous for subsequent management purposes. That is, EPA is not today redefining hazardous waste, but is instead imposing a condition on how hazardous wastes can be managed. Thus, penalties for impermissibly diluting a prohibited hazardous waste could include fines and injunctive relief such as digging up the waste and treating it properly. However, a unit receiving a diluted waste which is no longer defined as hazardous would not become a regulated unit subject to subtitle C regulation.

EPA solicits comment on this approach, and also on the broader question of whether the Agency should approach this question as a section 3001 issue relating to whether certain impermissibly diluted hazardous wastes would still be considered to be hazardous in order to reduce mass loadings of toxic constituents. EPA is also interested in comments on what mechanism the Agency should use to determine whether a hazardous waste is to be managed by means other than land disposal, and is thus able to be diluted.

EPA realizes that this interpretation could require some changes in existing hazardous waste management practices, particularly for wastewaters that exhibit a hazardous waste characteristic and that are diluted to remove the characteristic before reaching a land disposal unit. To the extent such wastewater streams are small volume, they could be drummed for off-site treatment or treated on a batch basis. Larger volume wastewaters could require segregated pretreatment. It appears to the Agency that that is a necessary corollary of prohibiting dilution of prohibited hazardous wastes. EPA solicits comment, however, on the volumes of wastes that may be affected and the availability of treatment for waste streams that may need to be



diverted. In addition, the Agency solicits comment on whether the reasons for the dilution prohibition apply equally to the non-toxic characteristic hazardous wastes or whether dilution should be considered to be a permissible type of treatment in some circumstances for these wastes (see the earlier discussion in section III.A.5 regarding the Agency's reasons for believing that such dilution is not appropriate treatment).

#### I. Storage Prohibition

Section 3004(j) provides that storage of prohibited hazardous wastes is itself prohibited "unless such storage is solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal." This language applies only to storage of prohibited wastes in non-land based storage units (like tanks and containers), land-based storage being a type of disposal.

The intent of RCRA section 3004(j) and 40 CFR 268.50 is to prohibit use of long-term storage to circumvent treatment requirements imposed by the LDRs. 129 Cong. Rec. H8139 (daily ed. October 6, 1983). As the court recently stated in *Hazardous Waste Treatment Council v. EPA* ("HWTC III") (No. 86-1657, D.C. Cir. September 15, 1989):

Congress believed that permitting storage of large quantities of waste as a means of forestalling treatment would involve health threats equally serious to those posed by land disposal, and therefore opted in large part for a "treat as you go" regulatory regime.

Slip op. at 5.

No firm time limit is established. Generators and owners or operators can store as long as necessary if such storage is solely for the purpose stated above. However, if prohibited wastes are stored beyond one year, the owner/operator has the burden of proving (in the event of an enforcement action) that such storage is for the allowable reason; prior to one year, EPA maintains the burden of proving that storage has occurred for the wrong reason.

Because EPA is aware of concerns that some legitimate storage technically may be prohibited under the current approach, the Agency is requesting comment on alternative approaches for prohibiting storage. Under one alternative, where prohibited wastes are stored in tanks or containers pending the utilization of proper treatment, recovery or disposal capacity, the storage would not be prohibited. Two examples of allowable storage under this alternative approach are provided below:

(1) Where a generator is storing wastes in tanks for six weeks because

of a backup at an incinerator which the generator has a contract to use; and

(2) Where a treatment facility treats a prohibited waste to a level that does not meet the treatment standard and then stores the waste before treating it again to meet the standard.

EPA is soliciting views on these issues today because a literal reading of the statute would likely condemn such storage as unlawful. This is because the statutory language and 40 CFR 268.50 draw a connection between the amount of waste being stored and the purpose of facilitating proper management. Virtually no storage except that undertaken to promote under-utilized proper management capacity would satisfy this literal reading of the provision.

EPA recognizes that under the alternative approach proposed today, the phrase "utilization of proper treatment, recovery or disposal capacity" would need to be further defined. The Agency also seeks comment on how a temporal element might be added to the phrase "pending the utilization \* \* \*" in order to define the limits of the proposed approach.

Accordingly, EPA is soliciting comment on the alternative interpretation (i.e. that the storage prohibition only applies if storage is surrogate disposal, for example due to failure to utilize existing treatment capacity, or if storage is otherwise undertaken for purposes of evading a land disposal prohibition). Commenters should also address other potential situations where they believe that an overly literal reading of section 3004(j) may have consequences they believe Congress did not intend.

#### J. Generator Notification Requirements

The generator notification requirements set forth in 40 CFR 268.7 specify that when the generator has determined, either through testing or through knowledge of the waste, that the waste is restricted and does not meet the applicable treatment standards, the generator must, with each shipment of waste, notify the treatment facility in writing of the appropriate treatment standards. This notice must include the EPA Hazardous Waste Number, the corresponding treatment standards and all applicable prohibitions set forth in § 268.32 or RCRA section 3004(d), the manifest number associated with the shipment of waste, and waste analysis data, where available (40 CFR 268.7(a)(1)). If the generator has determined that the waste being shipped is restricted, but can be land disposed without further treatment, he must submit to the land disposal facility the

same information, as well as a certification stating that the waste meets the applicable treatment standards (40 CFR 268.7(a)(2)).

The Agency has had a number of questions on whether the actual treatment standards (i.e., the actual number or method) must be placed on the generator notification form, or if it is sufficient to reference the appropriate treatment standards by citation to the applicable part of 40 CFR 268.41, .42, or .43. EPA's interpretation has been that all applicable treatment standards must be listed completely on the generator notification form sent to the treatment, storage or disposal facility. A number of commenters have indicated that they believe the current regulations can be interpreted to allow referencing, rather than listing the specific treatment standards as part of the generator notification. The commenters argue that referencing the standards serves the same purpose as listing the specific treatment standards. Furthermore, they find that the notification forms are becoming longer, more complicated, and unwieldy as new wastes and corresponding treatment standards are added to the list of wastes restricted from land disposal, and thus pose a burden on the generator when each treatment standard must be listed on the notification form.

The Agency is considering changing the interpretation of § 268.7 to allow referencing the treatment standards. The following information would be included in the reference: EPA Hazardous Waste Number, the treatability group(s) of the waste(s) (e.g., wastewater or non-wastewater), and the CFR section where the treatment standards appear. This information replaces only the listing of the applicable treatment standards; all other information would still be required in the notification. EPA is soliciting comment on this proposed re-interpretation to determine if the regulated community anticipates any problems with allowing the option of referencing the treatment standards, and to determine the effect this action would have on hazardous waste generators.

In addition, some commenters have raised concerns about notification requirements in § 268.7, particularly shipments subject to the March 24, 1986 small quantity generator (SQG) rule. This rule exempts SQGs (100-1000 kg/mo.) with tolling agreements (as defined in 40 CFR 262.20(e)) from the full part 262 manifesting requirements pursuant to 40 CFR 262.20(e). EPA is proposing to amend § 268.7 to require a one-time notification and certification for SQG shipments subject to tolling agreements.



Such agreements, as well as the one-time notifications and certifications, must be maintained by the generator for five years in keeping with the five-year retention period established in the First Third rule.

The Agency is proposing this amendment because it believes the subsequent handler of the waste under the contractual tolling arrangement has sufficient notification and knowledge of the nature of the wastes being handled. Tolling agreements provide for the collection and reclamation of a specified waste and for redelivery of regenerated material at a specified frequency. The Agency believes that since the same waste is picked up at regular intervals, one notice will suffice for the duration of the agreement to apprise the subsequent handler of the land disposal restrictions applicable to the waste.

#### *K. Modification to the Framework: Waste Analysis Plans and Treatment/Disposal Facility Testing Requirements*

Treatment and disposal facilities managing prohibited hazardous wastes must test the wastes for compliance with treatment standards at a frequency specified in the facility's waste analysis plan (§§ 268.7 (b) and (c)). The waste analysis plan must be sufficient to comply with all requirements of part 268 (§ 264.13(a)(1)).

A comment in section 264.13(a)(2) states that " \* \* \* the owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the [waste analysis] information required by paragraph (a)(1) of this section." This language has been mistakenly construed to preclude requiring the owner or operator of a treatment or land disposal facility to conduct a detailed chemical and physical analysis of a representative sample of the waste at a specific rate or frequency, without regard to whether information supplied by the generator is sufficient to assure compliance with part 268. Although there are certainly situations where the data submitted by the generator, or the knowledge of the generator, may constitute an essential part of the necessary information, the Agency is today proposing to amend the rules to more clearly specify the circumstances when EPA may require the owner or operator of a treatment or disposal facility to conduct such testing.

The Agency believes that, ordinarily, treatment and disposal facilities should do some corroborative testing to ensure compliance with treatment standards. This is because a crosscheck that treatment has been conducted successfully is needed to ensure that

ultimate disposal does not violate the statute and regulations. Corroborative testing will maximize the likelihood of ultimate disposal being legal. The testing will also provide useful records for ascertaining compliance. The Agency does not have the resources to perform such facility-by-facility testing itself; thus, the normal situation should be that treatment and disposal facilities should do some independent testing of prohibited wastes, even if the generator also tests or otherwise certifies. See *Hazardous Waste Treatment Council v. EPA* (No. 86-1657, D.C. Cir. September 15, 1989) (slip op. pp. 31-2) finding it reasonable for EPA to require treatment and disposal facilities to do back-up testing.

The Agency further believes that the frequency of testing is best determined on a case-by-case basis by the permit writer. This is because the range of variables (e.g., variety of wastes treated, different types of matrices, number of treatment processes involved) is too broad to realistically evaluate on a national level. Allowing permit writers to make the determination as to frequency of testing as part of the waste analysis plan allows maximum flexibility to take individual facility's circumstances into account, and so clearly appears to EPA to be the correct way to proceed. The Agency is seeking comment on the following two approaches that would specify the circumstances under which EPA may require testing.

The first approach is to amend the comment in 40 CFR 264.13(a)(2) to specify that the owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the waste analysis information only if an EPA-approved waste analysis plan affirmatively allows the generator to supply this information. Further, the Agency is proposing to amend §§ 268.7 (b) and (c) to reflect this change. Specifically, the Agency is specifying that the frequency with which the owner or operator is required by the Regional Administrator or his designee to test will be based on, but not limited to, the criteria included in § 264.13. EPA believes that today's amendment only clarifies existing requirements, since the waste analysis plan regulations already require that the plans be adequate to ensure compliance with part 268, and EPA considers it unlikely that a plan requiring no testing at all could adequately ensure such compliance. If EPA selects this option in the final rule, the sentence in the § 261.13(a)(2) comment that allows the owner or operator of an interim status facility to arrange for the generator to supply part

or all of the waste analysis information will be deleted because waste analysis plans for interim status facilities are self-implementing, and approval by EPA is not required. Consequently, under this approach, interim status facilities would no longer be able to rely on the generator's knowledge of the waste.

The second approach also seeks maximum flexibility to take into account individual facilities' circumstances by providing that, for purposes of compliance with part 268, testing frequency will be determined by the Regional Administrator or his designate, but requires that owners/operators of treatment and disposal facilities must conduct waste analyses a minimum of once each year. Under this approach, the requirement to obtain a detailed chemical and physical analysis of a representative sample of the waste (§§ 264.13(a)(1) and 265.13(a)(1)), would be revised to require owners/operators of treatment and disposal facilities to conduct detailed chemical and physical analyses of a representative sample, and to do so a minimum of once each year. In addition, § 268.7 (b) and (c) would be revised to reflect this change. The Agency notes that this second approach would be self-implementing, and would not require revision to existing permits. The Agency also notes that the Regional Administrator or his designate would have the discretion to require more frequent testing in the waste analysis plan based on site-specific circumstances. The Agency believes that the testing being proposed under the second approach is already being conducted by the regulated community since the current waste analysis plan regulations require the plans to be adequate to ensure compliance with part 268. Therefore, although a minimum testing frequency is being established under the second approach, the Agency does not believe that any new requirements are actually being imposed upon the regulated community.

#### *L. Testing of Wastes Treated in 90-Day Tanks or Containers*

Under § 268.7(b), treatment facilities treating prohibited hazardous wastes must test the treatment residues that they generate at a frequency determined by their waste analysis plan in order to ascertain compliance with the applicable treatment standards. All treatment facilities operating pursuant to interim status or a full permit must have a waste analysis plan.

There is a regulatory gap, however, with respect to treatment of prohibited wastes that is conducted in so-called 90 day tanks (or containers) regulated



under § 262.34. This is because such tanks (or containers) are not subject to a waste analysis plan requirement. Thus, there is presently no regulatory vehicle for determining testing frequency in such circumstances (although the existing testing requirement obviously applies, and continues to apply, to persons conducting treatment of prohibited wastes in § 262.34 tanks and containers).

In order to close this regulatory gap, EPA is proposing today that persons treating prohibited wastes in § 262.34 tanks and containers must prepare a plan justifying the frequency of testing that they choose to adopt. This plan would be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and must contain all information necessary to treat the waste(s) in accordance with requirements of part 268 (this language is drawn from the standard for waste analysis plans in §§ 264.13 and 265.13), including the selected testing frequency. The plan would be self-implementing, in the sense that there is no requirement of prior approval from any regulatory entity. There would, however, be a requirement that the plan be retained as a facility record, where it would serve as the means of justifying to enforcement officials why the frequency of testing selected by the facility is reasonable. Examples of factors EPA would expect to be included in the plan would be discussion of the number of prohibited wastes treated, their variability, and the variability of the treatment process.

#### *M. Relation of California List Prohibitions to Other Standards and Effective Dates*

One further issue meriting discussion is what remains of the California list regulatory and statutory prohibitions after promulgation of the Third Third final rule. The Agency has already indicated that California list prohibitions are superseded by more specific prohibitions and treatment standards. See 52 FR 29993 (August 12, 1987) and 52 FR 25773 (July 8, 1987); see also 40 CFR 268.32(h) (HOC prohibition superseded by treatment standard and effective date for a particular HOC). Thus, almost all of the California list prohibitions will be superseded when the Third Third rule is promulgated. The only continued applicability of the California list appears to be for: (1) Liquid hazardous wastes that contain over 50 ppm PCBs, where PCBs are not regulated by the treatment standard; (2) HOC-containing wastes identified as hazardous by a characteristic property

that does not involve HOCs, as, for example, an ignitable waste that also contains greater than 1000 ppm HOCs (but not an EP toxic waste that exhibits the characteristic because it contains one of the six chlorinated organic pesticides covered by the EP toxicity characteristic or for liquid wastes that exhibit the EP toxicity characteristic for metals and also contain greater than California list metal concentrations); and (3) liquid hazardous wastes that exhibit a characteristic and also contain over 134 mg/l of nickel and/or 130 mg/l of thallium. As discussed in detail below, California list prohibitions also normally apply during national capacity variance periods for wastes in the First, Second, or Third Third.

#### *1. Applicability of California List Prohibitions During Capacity Variances Based on Superseding Standards*

The Agency has previously indicated that California list regulatory and statutory prohibitions are superseded by more specific prohibitions and treatment standards. See 52 FR 29993 (August 12, 1987), 52 FR 25773 (July 8, 1987) and 53 FR 31187 (August 17, 1988); see also 40 CFR 268.32(h) (HOC prohibition superseded by treatment standard and effective date for a particular HOC). The Agency continues to believe this general approach is appropriate. In order to make clear to the regulated community the implications of the California list for the Third Third prohibitions (particularly characteristic wastes) and effective dates, the Agency wishes to reiterate how this approach operates during the period of a national capacity variance for a waste subject to a superseding standard.

As established in the First Third final rule, more specific standards supersede the California list prohibitions only after the actual effective date of the more waste-specific prohibition. During the period of any capacity variance for the more specific waste, however, the California list prohibition would continue to apply. See 53 FR 31188 (August 17, 1988). As discussed below, the Agency believes this approach avoids having a window of time where the waste is not subject to any standards. In some cases, this approach also avoids situations of the Agency effectively granting a capacity variance of over two years to certain California list wastes.

As an example, the prohibition on surface disposal of California list mercury wastes above 20 mg/l level was in effect on July 8, 1987 and would be in effect on August 8, 1990 for injected wastes. See 52 FR 25760 (July 8, 1987); 40 CFR 148.12(b). Today, EPA is

proposing BDAT methods and standards for wastes exhibiting the characteristic of EP toxicity for mercury and proposing a two-year national capacity variance for both certain surface disposed and injected wastes. BDATs for other wastes may also specifically address treatment of mercury. Under EPA's current approach, these superseding BDAT standards would take effect after the date of the capacity variance. During the period of any variance, however, the California list prohibition would remain in effect, so that liquid wastes containing greater than 20 mg/l of mercury could not be land disposed.

As another example, EPA has previously provided a two-year capacity variance for injected wastes subject to the California list prohibition on liquid hazardous wastes with pH less than 2. See 52 FR 30908 (August 10, 1988). The effective date for this California list prohibition for injected wastes is August 8, 1990. Today, EPA is proposing to set neutralization to a pH level in the range of 6 to 9 as the BDAT standard for wastes which exhibit the characteristic of corrosivity under 40 CFR 261.22. EPA is also proposing a national capacity variance to May 8, 1992, for injected corrosive wastes, but is proposing no capacity variance for corrosive wastes disposed in surface units.

Under the Agency's current approach, injected California list waste with a pH of less than 2 would be prohibited from land disposal on August 8, 1990. Injected corrosive waste with a pH of 9 or above would not be prohibited until May 8, 1992 (the effective date of the corrosivity characteristic BDAT standard for injected wastes) because there is no California list prohibition on this waste. Surface-disposed waste with a pH of 6 or less and 9 or above would be prohibited from land disposal on May 8, 1990 because the more specific standards for corrosive wastes apply.

The legal basis for EPA's existing approach is that without it, in the case of a waste which received a national capacity variance under the California list rule, EPA would effectively grant a national capacity variance for a California list wastes for longer than two years. For instance, in the example involving corrosive acids given above, the injected corrosive wastes would receive a national capacity variance for three years and nine months from the otherwise applicable California list statutory prohibition. This result may be inconsistent with the express language of section 3004(h)(2). In situations where a California list prohibition has already taken effect but EPA promulgates a later treatment standard with a national



capacity variance that overlaps the California list waste, it makes little sense for the California list prohibition (with which people are already complying) to be nullified by a later treatment standard until the treatment standard actually takes effect. See 53 FR at 31188. The Agency repeats that in such cases, some interim prohibition is better than none at all, and that the express role of the California list prohibitions is to serve as an interim prohibition level or standard. See S. Rep. No. 284, 98th Cong. 2d Sess. 17.

The Agency believes, however, that it is a permissible reading of RCRA that Congress gave the Agency independent authority to reevaluate national capacity for corrosive waste with a pH of less than 2 when setting standards for such wastes, since the Agency has authority to make such determinations for corrosive wastes. If the Agency reads the California list prohibition as controlling for this specific group of wastes, it effectively deprives itself of its section 3004(g)(4) authority to make capacity determinations for corrosive acids in the Third Third rule. Thus, EPA specifically solicits comments on the legal and policy issues as they may relate to California list wastes with a pH of less than 2.

EPA's approach may not be fully clear from a simple reading of the language currently codified at 40 CFR 268.32(h) for HOC wastes. Under that provision, the California list prohibitions for HOC-containing wastes specified in 40 CFR 268.32(a) (3) and (e) do not apply where the waste is subject to a more waste-specific prohibition and effective date. The Agency notes, however, that none of the several examples in the preamble to the California list rule at 52 FR 25760, 25773, 25775, and 25776 (July 8, 1987) addressed the situation where there is a subsequent waste-specific standard which also has a capacity variance. Indeed, one of the functions of the rule at 40 CFR 268.32(h) was "to avoid situations where the Agency would be granting a national capacity variance for a period longer than two years." *Id.* at 25773. Moreover, EPA's clarification in the First Third rule was clear and unchallenged.

Accordingly, EPA is proposing to modify the language of 268.32(h) explicitly to preclude any periods of time where neither California list nor superseding HOC standards would operate.

## 2. Application of California List Prohibitions to Newly Identified or Listed Wastes

EPA also solicits comment on whether the California list prohibitions apply to

newly identified and listed hazardous wastes. The California list statutory prohibitions, on the one hand, can be read as applying to all hazardous wastes, regardless of when they become identified or listed. In addition, Congress viewed these prohibition levels as a first step in the prohibition process, and so the California list prohibitions and treatment standards might be viewed as appropriate to fill the gap until the Agency develops more specific treatment standards for the newly identified or listed wastes.

On the other hand, the statute contemplates that the Agency will have six months to develop treatment standards for newly identified and listed wastes, and that there will be no statutory hammer if the Agency fails to establish such treatment standards. (RCRA section 3004(g)). Given this scheme, it does not appear that Congress necessarily contemplated that these wastes be subject to an immediate California list prohibition. Furthermore, the fact that the California list provision contains a 1987 hard hammer suggests that the provision only was meant to apply to wastes hazardous at that time, rather than to wastes not yet identified or listed.

It thus appears to the Agency that it has a choice as to whether California list prohibitions apply to newly identified or listed wastes. Policy reasons supporting the reading that the prohibitions apply would be the earlier implementation of either treatment standards or interim controls on certain types of land disposal (such as treatment in minimum technology surface impoundments). On the other hand, the Agency is concerned that there not be massive dislocations in the regulated community due to legitimate expectations that land disposal prohibitions for newly identified or listed wastes not take effect until EPA had taken some action specifically directed toward those wastes, normally a waste-specific rulemaking establishing treatment standards.

If EPA determines that California list prohibitions do apply to newly identified or listed wastes, the Agency anticipates the necessity of granting a two-year national capacity variance for certain wastes (e.g., sludge-solids contaminated with HOCs) exhibiting the revised toxicity characteristic that are newly subject to subtitle C.

In addition, if EPA issues a national capacity variance, the Agency would have to reconcile the four-year impoundment retrofit provision in RCRA section 3005(j)(6) with the requirement in section 3004(h) that national capacity variance wastes be placed in minimum

technology surface impoundment units. It appears to the Agency, at least at this time, that the two provisions are in conflict. EPA therefore has discretion to craft a reading that best furthers statutory goals. *Citizens to Save Spencer County v. EPA*, 600 F. 2d. 844 (D.C. Cir. 1979). EPA's proposed resolution would be to allow impoundments up to four years to retrofit, but to require the wastes to use available treatment capacity if it becomes available sooner (i.e., if no case-by-case variance were to be granted after the two-year national capacity variance is over).

On the other hand, if the Agency ultimately determines that California list prohibitions do not apply to newly identified or listed wastes, then the Agency would delete the existing requirement that California list HOCs be treated in either boilers, furnaces, or incinerators (see 53 FR 31138-31222, August 17, 1988), and instead limit the treatment method to burning in incinerators. EPA amended the treatment standard for HOCs to include boilers and furnaces in significant part to assure available treatment capacity for HOCs and to allow a prohibition to take effect at an earlier date (U.S. EPA, "Comment Response Background Document for the First Third Proposed Land Disposal Restrictions, Volume I," August 8, 1988, page 12-4). Once the Third Third rule is promulgated, and assuming that California list prohibitions do not apply to newly identified and listed wastes, there are virtually no wastes (and possibly none at all) to which the HOC standard would apply. Therefore, it is not necessary that there be additional combustion capacity in the form of boilers and furnaces for these wastes, and EPA can determine on a more particularized basis whether fuel substitution should be a basis for BDAT. EPA therefore solicits comment on whether it should delete the August 17, 1988 rule amending the treatment standard for HOCs to include burning in boilers and industrial furnaces should it determine that California list prohibitions do not apply to newly identified and listed hazardous waste.

## IV. State Authority

### A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program within the State. Following authorization, EPA retains enforcement authority under sections 3008, 3013, and



7003 of RCRA, although authorized States have primary enforcement responsibility. The standards and requirements for authorization are found in 40 CFR part 271.

Prior to HSWA, a State with final authorization administered its hazardous waste program in lieu of EPA administering the Federal program in that State. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities that the State was authorized to permit. When new, more stringent Federal requirements were promulgated or enacted, the State was obliged to enact equivalent authority within specified time frames. New Federal requirements did not take effect in an authorized State until the State adopted the requirements as State law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), new requirements and prohibitions imposed by HSWA take effect in authorized States at the same time that they take effect in nonauthorized States. EPA is directed to carry out these requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so. While States must still adopt HSWA-related provisions as State law to retain final authorization, HSWA applies in authorized States in the interim.

With one exception, today's rule is proposed pursuant to sections 3004(d) through (k), and (m), of RCRA (42 U.S.C. 6924(d) through (k), and (m)). Therefore, it will be added to Table I in 40 CFR 271.1(j), which identifies the Federal program requirements that are promulgated pursuant to HSWA and take effect in all States, regardless of their authorization status. States may apply for either interim or final authorization for the HSWA provisions in Table I, as discussed in the following section. When this rule is promulgated, Table 2 in 40 CFR 271.1(j) will be modified also to indicate that this rule is a self-implementing provision of HSWA.

The exception is the proposed clarifying amendments to §§ 261.33 (c) and (d). These clarifications are not effective in authorized States since the requirements are not imposed pursuant to HSWA. Thus, these requirements will be applicable only in those States that do not interim or final authorization. In authorized States, the requirements will not be applicable until the State revises its program to adopt equivalent requirements under State law.

#### B. Effect on State Authorizations

As noted above, EPA will implement today's proposal in authorized States

until their programs are modified to adopt these rules and the modification is approved by EPA. Because the rule is proposed pursuant to HSWA, a State submitting a program modification may apply to receive either interim or final authorization under RCRA section 3006(g)(2) or 3006(b), respectively, on the basis of requirements that are substantially equivalent or equivalent to EPA's. The procedures and schedule for State program modifications for either interim or final authorization are described in 40 CFR 271.21. It should be noted that HSWA interim authorization will expire on January 1, 1993 (see 40 CFR 271.24(c)).

Section 271.21(e)(2) requires that States that have final authorization must modify their programs to reflect Federal program changes and must subsequently submit the modification to EPA for approval. The deadline by which the State must modify its program to adopt this proposed regulation will be determined by the promulgation of the final rule in accordance with § 271.21(e). These deadlines can be extended in certain cases (see § 271.21(e)(3)). Once EPA approves the modification, the State requirements become Subtitle C RCRA requirements.

States with authorized RCRA programs may already have requirements similar to those in today's proposal. These State regulations have not been assessed against the Federal regulations being proposed today to determine whether they meet the tests for authorization. Thus, a State is not authorized to implement these requirements in lieu of EPA until the State program modification is approved. Of course, States with existing standards may continue to administer and enforce their standards as a matter of State law. In implementing the Federal program, EPA will work with States under agreements to minimize duplication of efforts. In many cases, EPA will be able to defer to the States in their efforts to implement their programs rather than take separate actions under Federal authority.

States that submit official applications for final authorization less than 12 months after the effective date of these regulations are not required to include standards equivalent to these regulations in their application. However, the State must modify its program by the deadline set forth in § 271.21(e). States that submit official applications for final authorization 12 months after the effective date of these regulations must include standards equivalent to these regulations in their application. The requirements a state must meet when submitting its final

authorization application are set forth in 40 CFR 271.3.

The regulations being proposed today need not affect the State's Underground Injection Control (UIC) primacy status. A State currently authorized to administer the UIC program under the Safe Drinking Water Act (SDWA) could continue to do so without seeking authority to administer these amendments. However, a State which wished to implement part 148 and receive authorization to grant exemptions from the land disposal restrictions would have to demonstrate that it had the requisite authority to administer sections 3004(f) and (g) of RCRA. The conditions under which such an authorization may take place are summarized below and are discussed in a July 15, 1985 final rule (50 FR 28728).

#### C. State Implementation

The following four aspects of the framework established in the November 7, 1986, rule (51 FR 40572) affect State implementation of today's proposal and impact State actions on the regulated community:

1. Under part 268, subpart C, EPA is proposing land disposal restrictions for all generators, treaters, storers, and disposers of certain types of hazardous waste. In order to retain authorization, States must adopt the regulations under this Subpart since State requirements can be no less stringent than Federal requirements.

2. Also under part 268, EPA is proposing to grant two-year national variances from the effective dates of the land disposal restrictions based on an analysis of available alternative treatment, recovery, or disposal capacity. Under § 268.5, case-by-case extensions of up to one year (renewable for one additional year) may be granted for specific applicants lacking adequate capacity.

The Administrator of EPA is solely responsible for granting variances to the effective dates because these determinations must be made on a national basis. In addition, it is clear that RCRA section 3004(h)(3) intends for the Administrator to grant case-by-case extensions after consulting the affected States, on the basis of national concerns which only the Administrator can evaluate. Therefore, States cannot be authorized for this aspect of the program.

3. Under § 268.44, the Agency may grant waste-specific variances from treatment standards in cases where it can be demonstrated that the physical and/or chemical properties of the wastes differ significantly from wastes



analyzed in developing the treatment standards, and the wastes cannot be treated to specified levels or treated by specified methods.

The Agency is solely responsible for granting such variances since the result of such an action may be the establishment of a new waste treatability group. All wastes meeting the criteria of these new waste treatability groups may also be subject to the treatment standard established by the variance. Granting such variances may have national impacts; therefore, this aspect of the program is not delegated to the States at this time.

4. Under § 268.6, EPA may grant petitions of specific duration to allow land disposal of certain hazardous wastes where it can be demonstrated that there will be no migration of hazardous constituents for as long as the waste remains hazardous. States which have the authority to impose restrictions may be authorized under RCRA section 3006 to grant petitions for exemptions from the restrictions. Decisions on site-specific petitions do not require the national perspective required to restrict wastes or grant extensions. EPA will be handling "no migration" petitions at Headquarters, though the States may be authorized to grant these petitions in the future. The Agency expects to gain valuable experience and information from review of "no migration" petitions which may affect future land disposal restrictions rulemakings. In accordance with RCRA section 3004(i), EPA will publish notice of the Agency's final decision on petitions in the *Federal Register*.

#### V. Effect of the Land Disposal Restrictions Program on Other Environmental Programs

##### A. Discharges Regulated Under the Clean Water Act

As a result of the land disposal restrictions program, some generators might switch from land disposal of restricted Third Third wastes to discharge to publicly-owned treatment works (POTWs) in order to avoid incurring the costs of alternative treatment. In shifting from land disposal to discharge to POTWs, an increase in human and environmental risks could occur. Also as a result of the land disposal restrictions, hazardous waste generators might illegally discharge their wastes to surface waters without treatment, which could cause damage to the local ecosystem and potentially pose health risks from direct exposure or bioaccumulation.

Some generators might treat their wastes prior to discharging to a POTW,

but the treatment step itself could increase risks to the environment. For example, if incineration were the pretreatment step, metals and other hazardous constituents present in air scrubber waters could be discharged to surface waters. However, the amount of Third Third waste shifted to POTWs would be limited by such factors as the physical form of the waste, the degree of pretreatment required prior to discharge, and State and local regulations.

##### B. Discharges Regulated Under the Marine Protection, Research, and Sanctuaries Act

There could be a potential demand for some of the hazardous wastes included in today's proposed rulemaking to be shifted from land disposal to ocean dumping and ocean-based incineration. If the cost of ocean-based disposal plus transportation were lower than the cost of land-based treatment, disposal, and transportation, this option could seem to be an attractive alternative. In addition, ocean-based disposal could seem attractive to the regulated community if land-based treatment were not available.

However, the Ocean Dumping Ban Act of 1988 has restricted ocean dumping of sewage sludge and industrial wastes to existing, authorized dumpers until December 31, 1991, after which " \* \* \* it shall be unlawful for any person to dump (sewage sludge or industrial wastes) into ocean waters \* \* \* ". Therefore, the Ocean Dumping Ban Act has made moot any economic or other incentive to ocean dump industrial hazardous wastes, including the wastes subject to this regulation.

##### C. Wellhead Protection Regulated Under the Safe Drinking Water Act

Section 1428 of the SDWA contains requirements for the development and implementation of state Wellhead Protection (WHP) Programs to protect wells and wellfields which are used, or may be used to provide drinking water to public water systems. Under section 1428, each state must adopt and submit to EPA for approval a WHP program that, at a minimum:

- (1) Specifies the duties of state agencies, local governments, and public water systems in the development and implementation of the WHP program;
- (2) For each wellhead, determines the wellhead protection area (WHPA), as defined in section 1428(e) of SDWA, based on all reasonably available hydrogeologic information on ground-water flow, recharge, and discharge and other information the state deems

necessary to adequately determine the WHPA;

(3) Identifies within each WHPA all potential human sources of contaminants which may have any adverse health effects;

(4) Describes provisions for technical assistance, financial assistance, implementation of control measures, and education, training, and demonstration projects to protect the water supply within WHPAs from such contaminants;

(5) Includes contingency plans for the location and provision of alternate drinking water supplies for each public water system in the event of well or wellfield contamination by such contaminants;

(6) Requires that state and local governments and public water systems consider all potential sources of human contamination within the expected wellhead area of a new water well which serves a public water system; and

(7) Requires public participation in developing the WHP program.

SDWA required all states to submit a WHP program to EPA by June 19, 1989, for EPA review and approval. EPA has received 29 state submittals for review. SDWA requires that all Federal agencies having jurisdiction over any potential source of contaminants identified by a state program under this section shall comply with all the requirements of the state program.

Any private or public entity subject to the land disposal restrictions regulations must also be in compliance with the appropriate state's wellhead protection program. The Agency reiterates that the land disposal of hazardous wastes must comply not only with the land disposal restrictions and other RCRA regulations, but with other environmental programs, such as the Wellhead Protection Program under the Safe Drinking Water Act.

##### D. Air Emissions Regulated Under the Clean Air Act (CAA)

There are two air emission concerns with respect to the land disposal restrictions. The first is a cross-media concern about air emissions that occur as a result of waste treatment such as incineration of metal-bearing wastes causing metal emissions to the atmosphere. Another concern is with air emissions from the land disposal of the treatment residue. Air emission control programs are under development using both the CAA and RCRA to address these concerns as discussed below.

Specific cross-media air emission concerns have been identified for treatment technologies applicable to



Third Third wastes, but EPA believes that existing Clean Air Act controls adequately address the potential problems. Retorting of mercury sulfide wastes can result in air emissions of both elemental mercury and sulfur dioxide (SO<sub>2</sub>). The Agency has promulgated a National Emission Standard for Hazardous Air Pollutants (NESHAP) for mercury emissions under section 112 of the CAA (40 CFR part 61, subpart E). There are no industry-specific national CAA control standards for SO<sub>2</sub> emissions from retorting mercury sulfide wastes. There are, however, regulations for the prevention of significant deterioration (PSD) of air quality that would address not only these SO<sub>2</sub> emissions but also any mercury emissions that are not regulated by the NESHAP.

The NESHAP limits mercury emissions to the atmosphere from mercury processing facilities, mercury cell chlor-alkali plants, and plants that incinerate and/or dry wastewater treatment plant sludges. In all these cases, the NESHAP limits mercury emissions across the entire processing facility to the extent necessary to protect human health. The NESHAP would not apply to a dedicated mercury sulfide waste retorting facility that is not located in an ore processing or a mercury cell chlor-alkali plant.

Under section 165(a) of the CAA, all new major stationary sources and major modifications to existing sources of air pollution must obtain a PSD permit. If the mercury or SO<sub>2</sub> emissions from the retorting process were to come from a major stationary source or a major modification subject to the PSD regulations and would be emitted in significant amounts (greater than 0.1 tons per year of mercury or 40 tons per year of SO<sub>2</sub>), then such emissions would be subject to best available control technology (BACT) requirements. An air quality analysis for mercury and SO<sub>2</sub> would also be required under PSD. Moreover, an air quality analysis must be conducted to demonstrate that the SO<sub>2</sub> emissions would neither cause nor contribute to violations of any national ambient air quality standard (NAAQS) or PSD increment for SO<sub>2</sub>. Facilities that are located in areas that have failed to meet any NAAQS for SO<sub>2</sub> (i.e., designated nonattachment areas) and emit more than 100 tons per year of SO<sub>2</sub>, must not only apply emission controls that meet the lowest achievable emission rate but also offset their remaining SO<sub>2</sub> emissions by acquiring federally enforceable emission reductions from other nearby SO<sub>2</sub> emissions sources.

The Agency is also concerned whether incineration of wastes containing brominated organics or organo-nitrogen compounds may adversely affect air quality. The presence of bromine complicates the evaluation of incineration of these wastes. A detailed discussion of the Agency's approach for brominated organics is contained in section III.A.2.e of today's preamble. A discussion of potential nitrogen oxide emissions from organo-nitrogen wastes is contained in section III.A.3.f.

There are several general regulatory development programs under RCRA that address treatment technology air emissions. The Agency has initiated a three-phased program under section 3004(n) of RCRA to address air emissions from hazardous waste management units other than incinerators. The first phase addresses organic air emissions as a class from two types of emission sources. The first source category is process equipment (pumps, valves, etc.) that contact hazardous waste that contain greater than 10 percent organic compounds, including such as distillation units and incinerators. The second source category is certain vents on various treatment technologies, such as air or steam strippers. These standards were proposed in the *Federal Register* on February 5, 1987 (52 FR 3748) and are scheduled to be promulgated in fall of 1989.

The second phase of standards development under section 3004(n) of RCRA addresses organic air emissions as a class from tanks, containers, and surface impoundments. Treatment technologies that occur in tanks or containers that are not controlled by the Phase I standards would be controlled by these standards. Wastes that would be prohibited from land disposal may continue to be managed in a surface impoundment as long as the treatment residuals that do not meet the applicable treatment standards are removed from the impoundment within one year of entry into the impoundment. These standards will control air emissions from the management of wastes in the surface impoundment. These standards are scheduled to be proposed in the *Federal Register* in fall of 1989.

In the third phase of the section 3004(n) standards development, the Agency will develop additional standards for the sources addressed in the first two phases as necessary to address residual risks.

In addition to the section 3004(n) standards, general standards to control both organic and metal emissions from

the combustion of hazardous waste in incinerators and other types of combustion devices are under various stages of development.

In certain cases, waste treatment may occur in treatment technologies that are not required to obtain RCRA permits. Guidance for the control of air emissions from these sources, such as exempt biological treatment tanks and recycling units, is being developed under the CAA.

None of the regulatory efforts discussed above address air emissions from the land disposal of treatment residue in landfills, land treatment units, or waste piles because the Agency presently presumes that these units will only receive wastes that have been treated to meet the BDAT requirements and that this level of treatment comments on this presumption. In a separate rulemaking, the Agency is considering to propose regulations limiting air emissions from land disposal units seeking to land dispose of wastes under a no migration variance.

#### *E. Clean Up Actions Under the Comprehensive Environmental Response, Compensation, and Liability Act*

The land disposal restrictions may have significant effects on the selection and implementation of response actions that are taken under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). There are three primary areas in which these effects may occur.

One area that may be affected by the land disposal restrictions is in the selection of treatment standards at the remedial action site. The cleanup standards set at CERCLA sites are risk-based, while treatment standards developed under the land disposal restrictions program are technology-based. Therefore, the technology-based treatment standards may be more stringent than the risk-based cleanup standards developed based on the CERCLA selection of remedy criteria, and vice versa. Another matter that may be affected is the treatment of soil and debris contaminated with wastes restricted from land disposal. Contaminated soil and debris are a primary type of waste that must be remediated at most CERCLA sites. In many cases, the soil matrix is different from that of the industrial wastes for which treatment standards are set. CERCLA site managers must either comply with the treatment standards or request and be granted a variance from the treatment standard (§ 268.44) or



request and be granted a "no-migration" variance (§ 268.6).

Finally, even though the hazardous substances at a CERCLA remediation site may have been disposed prior to the effective date of RCRA, if the action involves removal of restricted wastes after the prohibition effective date, the land disposal restrictions are legally applicable (51 FR 40577, November 7, 1986). See also *Chemical Waste Management v. EPA*, 869 F.2d at 1535-37 (D.C. Cir. 1989). For example, if a waste is excavated from a unit, treated, and redispersed, EPA has indicated that "placement" (see RCRA section 3004(k)) of the waste in a land disposal unit has occurred, and the applicable treatment standards must be met (see 53 FR 51444 and 51445, December 21, 1988). However, if the waste is capped in place, removal or "placement" has not occurred, and the treatment standards are not legally applicable.

#### *F. Applicability of Treatment Standards to Wastes From Pesticides Regulated Under the Federal Insecticide, Fungicide, and Rodenticide Act*

A number of generators of pesticide waste that have heretofore been comparatively unaware of the land disposal restrictions may be regulated when today's proposed rulemaking is promulgated. This will require that the Agency develop guidance materials and provide training on how to comply with the requirements of the land disposal restrictions.

Generators of significant quantities of pesticide P and U wastes are farmers and commercial pesticide applicators. The provisions of 40 CFR 262.70 and 268.1 exempt farmers from regulation under the land disposal restrictions program; however, no such exemption exists for commercial applicators. Such generators of hazardous wastes have traditionally land disposed their pesticide wastes. Subsequent to promulgation of today's proposed rule, these generators must comply with the requirements of the land disposal restrictions if they dispose a restricted hazardous waste.

#### *G. Regulatory Overlap of Polychlorinated Biphenyls (PCBs) Under the Toxic Substance Control Act (TSCA) and RCRA*

Certain P and U listed wastes contain PCBs. The PCB component of such a waste mixture is regulated primarily under TSCA (although it may also be a California list waste, and subject to RCRA regulation (both substantive and administrative as well)), while the listed P or U component of the waste is regulated under RCRA. Such a mixture

of listed/PCB waste must meet the applicable requirements under both statutes. Such a waste must go to an incinerator permitted under both TSCA and RCRA. Any ash residual from incineration must meet the treatment standard for the listed waste component prior to land disposal.

### **VI. Regulatory Requirements**

#### *A. Regulatory Impact Analysis—Surface Disposed Wastes*

In accordance with Executive Order No. 12291, the Agency has reviewed the costs and benefits of today's rule and has determined that today's rule constitutes a "major regulation" because it is likely to result in an annual cost to the economy in excess of \$100 million. As a result of this determination, the Agency has conducted a regulatory impact analysis (RIA) in support of today's rule. The complete RIA document, "Regulatory Impact Analysis of the Land Disposal Restrictions for Third Third Scheduled Wastes Proposed Rule (Draft)," is available for review in the public docket for today's rule. The complete document was also submitted to the Office of Management and Budget for review, as required by Executive Order No. 12291.

This section of the preamble summarizes the results of the regulatory impact analysis of the proposed rule, as detailed in the draft RIA document. Section VI.A.1 below describes the universe of wastes and facilities affected by today's rule. Section VI.A.2 below summarizes the analysis of human health and environmental benefits attributable to today's rule. Section VI.A.3 summarizes the economic cost and impact analysis performed for today's rule.

It is important to note that the summary analysis presented in this section of the preamble and in the draft RIA document does not completely reflect the current status of the proposed rule or the regulated community. For example, when the RIA was begun, the latest data available to describe the universe of facilities managing Third Third wastes was EPA's 1986 "National Survey of Hazardous Waste Treatment, Storage, Disposal, and Recycling Facilities." Between the time of data collection for this survey and today, there have been changes at particular facilities regarding waste practices and volumes. The most dramatic change has been with surface impoundments that have subsequently been closed or no longer receive hazardous wastes. The Agency has updated the data base to reflect these changes wherever possible, but some differences may still exist.

Because the data were revised, the Agency believes that this source of discrepancy is small.

As another example, proposed treatment standards had not been established for all affected wastes when the RIA began. Thus, in order to complete the regulatory analysis in time to accompany the proposed rule, the Agency had to make certain assumptions as to what would be selected for proposed treatment standards. Consequently, the standards modelled in the regulatory impact analysis and the standards actually proposed were not identical for 17 of the more than 300 waste codes addressed in the proposed rule. The differences are not expected to have a significant effect on the cost estimates because the technologies assumed for these 17 waste codes were similar in cost to that actually proposed. These and other discrepancies will be addressed in the regulatory impact analysis of the Third Third final rule.

The Agency analyzed benefits, costs and economic impacts using the same approach and methodology that was used for the August 17, 1988, First Third final rule (53 FR 31138).<sup>1</sup> The effects of the proposed rule were estimated by comparing post-regulatory management practices and conditions with those occurring under baseline conditions. The baseline was defined as continued land disposal of wastes in units meeting minimum technological requirements. The baseline for future years was not adjusted to reflect hard hammer provisions that would prohibit land disposal in the absence of the proposed rule after May 8, 1990.

The Agency did adjust reported waste management practices to reflect compliance with the provision of promulgated land disposal restriction rules covering solvents and dioxins, California list wastes, and First and Second Third scheduled wastes. In making these adjustments, EPA assumed that facilities would comply with these other rules by the least costly methods allowable.

#### **1. Overview of Affected Wastes, Facilities, and Management**

The universe of waste and facilities examined for the RIA was developed from EPA's 1986 "National Survey of Hazardous Waste Treatment, Storage, Disposal, and Recycling Facilities" (hereafter, the TSDR Survey) and EPA's

<sup>1</sup> For detailed information on the cost methodology, see *Regulatory Impact Analysis of the Land Disposal Restrictions on First Third Wastes: Final Report*, August 1988, ICF Incorporated.



1984 "National Survey of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated under RCRA in 1981" (hereafter, the RIA Mail survey). Data regarding waste management in surface impoundments in the TSDR Survey has been adjusted to reflect changes in industry practices since 1986. Most treatment and storage surface impoundments in the TSDR Survey have been closed or have been exempted from hazardous waste management regulations.

As with past land disposal restrictions RIAs, the TSDR and RIA Mail surveys provide an overview of the number of facilities treating, storing, or disposing of waste; the quantities and types (by RCRA waste code) of waste managed at each facility; and the current practice or method of treatment. The adjusted information contained in the two surveys is accepted as the baseline (i.e., pre-Third Third rule) practice for this RIA.

**Quantity of Affected Waste.** Today's rule will potentially affect approximately 379 million gallons of waste per year as shown in Figure VI-1.

TABLE VI-1.—THIRD THIRD RULE QUANTITY BY WASTE TYPE

[In million gallons per year]

	Vol.
Ignitable (D001), Corrosive (D002), and Reactive Wastes (D003).....	36
EP Toxic Wastes (D004-D017).....	141
Listed Wastes.....	3
Mixtures of Wastes.....	135
CBI Wastes.....	64
Total.....	379

Characteristic wastes constitute the largest volume of wastes covered by the proposed rule. In addition to the 47 percent identified as D001-D017, the waste mixtures category is dominated by characteristic wastes. For instance, two mixtures of characteristic wastes (D002/D007/D009 and D002/D006/D008) alone account for 110 million gallons, more than 80 percent of the waste mixtures volume. Table VI-2 gives the volumes of the predominant characteristic wastes affected by the proposed rule.

TABLE VI-2.—Predominant Characteristic Wastes by Volume

[In million gallons per year]

	Vol.
Mixture of D002, D007 & D009.....	99
D008 (EP Toxic for lead).....	62

TABLE VI-2.—Predominant Characteristic Wastes by Volume—Continued

[In million gallons per year]

	Vol.
D007 (EP Toxic for chromium).....	47
D001 (Ignitable).....	15
D002 (Corrosive).....	14
D004 (EP Toxic for arsenic).....	12
Mixture of D002, D006, D008.....	11
Other characteristic wastes and mixtures.....	52
Total.....	312

**Affected Facilities.** A total of 111 waste management facilities and over 1,300 waste generators are affected by today's proposed rule. Table VI-3 provides a breakdown of affected facilities and their volumes managed.

TABLE VI-3.—Third Third Rule Volumes by Facility Type

[In million gallons per year]

TSDF facilities	Vol.	No. of affected facilities
Commercial Facilities.....	229	31
Noncommercial Facilities.....	150	84
Subtotal TSDFs.....	379	*111
Generators.....	**N/A	1,389
Total.....	379	1,500

\* Some TSDFs are both commercial and noncommercial.

\*\* All generator volumes are managed at commercial facilities.

The affected facilities represent a wide variety of industries in 23 major industrial groups. A further examination of the TSDR survey data reveals the following information about the range of industries with large volumes of Third Third wastes.

The volume of noncommercial process waste, which accounts for 39.6 percent of the total waste volume, is distributed across the following Standard Industrial Code (SIC) groups:

- SIC 28, Chemical and Allied Products (71%)
- SIC 33, Primary Metals Industries (11%)
- SIC 49, Electric, Gas, and Sanitary Services (8%)
- SIC 29, Petroleum Refining and Related Industry (4%)
- CBI (4%)
- other industry groups (2%).

The volume of commercial process waste, which accounts for 60.4 percent of the total waste volume, is distributed across the following SIC groups:

- SIC 49, Electric, Gas, and Sanitary Services (39%)
- CBI (26%)
- SIC 99, Nonclassifiable Establishments (8%)

- SIC 89, Services, not classified (8%)
- SIC 28, Chemicals and Allied Products (8%)
- SIC 33, Primary Metals Industries (5%)
- other industry groups (8%).

**Waste Management Practices.** Based on the TSDR survey, the RIA examined five land disposal baseline management practices: disposal in landfills, disposal by land treatment, disposal in surface impoundments, treatment in waste piles, and storage in waste piles. Table VI-4 provides a breakdown of these baseline management practices by volume and number of facilities. As shown on the table, almost two thirds of the waste volume covered by the proposed rule is currently managed in landfills or disposal surface impoundments. Landfills are also the most prevalent baseline practice, occurring at over 35 percent of the affected facilities. About 30 percent of the wastes are managed in disposal surface impoundments.

TABLE VI-4.—THIRD THIRD RULE BASELINE MANAGEMENT PRACTICES

Baseline Practice	Vol.(MG)	Facilities
Landfill.....	134.0	35.4
Land treatment.....	5.0	21.0
Storage waste piles.....	35.0	22.0
Treatment waste piles.....	27.0	14.0
Disposal surface impoundments <sup>114</sup> .....	7.1	12.0
Confidential business information.....	64.0	18.0
Total.....	379.0	111.0

Treatment practices in compliance with today's rule significantly redistribute the quantities of waste among management practices. Most important, while 379 million gallons of waste per year are land disposed under baseline management practices, 209 million gallons of waste per year would be disposed of in landfills after treatment as a result of today's rule. Thus, the proposed rule would result in a 45 percent reduction in the volume of Third Third wastes being land disposed. Most of the wastes covered by the proposed rule would be treated by precipitation or stabilization.

## 2. Benefits of the Proposed Rule

The proposed rule would result in several benefits including reduced human health risks, improved safety at facilities, and reduced ecological effects. As with previous land disposal restrictions, the Agency quantified the human health benefits and conducted a qualitative analysis of the other benefits.



**Human-Health Benefits.** The quantitative benefits analysis estimated that over a 70 year lifetime, the proposed rule would reduce cancer cases by 148 and reduce the number of people exposed to at least one noncarcinogens above health based criteria by about 34,700.

Approximately 85% of cancer cases averted are due to reduced exposure to benzene, acrylonitrile, dichloromethane and other carcinogenic constituents in D001 ignitable wastes and arsenic in D004. Treatment of these wastes account for about 10% of the costs of the rule. About 99% of noncarcinogenic benefits are due to reduced exposure to D001 ignitable wastes, cadmium (D006) and chromium (D007) as well as mixtures with these metals or nickel, mercury or barium. Treatment of these wastes account for about 44% of the cost of the rule.

The Agency notes that these estimates are uncertain and may overstate or underestimate the human-health benefits of the proposed rule. The RCRA Risk-Cost Analysis model does not contain enough data to model about 90 of the more than 250 constituents found in the Third Third wastes. As a result, benefits of regulating wastes with one or more of these missing constituents may be underestimated. At the same time, benefits may be overestimated due to conservative exposure assumptions. Exposure scenarios are based on drinking 2 litres/day for seventy years of contaminated water or inhalation of 20 cubic meters/day of air for seventy years.

**Safety Benefits.** In addition to adverse human-health effects, ignitable (D001) and reactive (D003) wastes may pose a general safety hazard. Land disposal of these wastes are currently only allowed if the waste is either deactivated or precautions are taken to prevent accidental ignition or reaction. Approximately 22 million gallons of D001 and D003 are currently being land disposed without deactivation. Until they are deactivated, there is some ongoing risk that the safety precautions may fail, resulting in fires, explosions, or release of toxic gases. The proposed rule would require deactivation, thereby terminating the safety risk.

**Environmental Benefits.** The proposed rule would result in an overall reduction in toxic releases to the environment, thereby reducing adverse effects to ecosystems. The resulting improvement in ecological health is extremely difficult to quantify due to uncertainty in estimating exposure levels and species populations. However, the sensitivity of certain species to hazardous constituents of wastes covered by the

proposed rule suggest a very high potential for ecological effects.

As an example, aquatic species are at least two orders of magnitude more sensitive than humans to arsenic (D004), mercury (D009), silver (D011), lindane (D013), methoxychlor (D014), and toxaphene (D015). Therefore, to the extent that these wastes are released to waterbodies, aquatic ecosystems may be at some risk even when there is no human health risk.

Another way to look at the potential for ecological effects is to consider the proximity of land disposal facilities to waterbodies. A recent Agency study on ecological risks showed that for a sample of 52 National Priorities List sites, almost 90 percent of the sites posed a threat to freshwater ecosystems due to their proximity to waterbodies.<sup>2</sup> Wastes removed from some of these sites may be subject to the treatment standards proposed in this rule. Thus, the proposed rule would reduce ecological risk associated with any Third Third wastes managed at these sites.

### 3. Costs

The proposed rule would result in an annual incremental costs of approximately \$259 million, and would affect over 1400 facilities in 17 industrial sectors. Table VI-5 summarizes the estimated incremental costs associated with today's rule by waste type.

As expected based on volumes, the largest incremental cost is attributed to the management of characteristic wastes. Although the listed wastes are a small volume and have the lowest total cost, expensive treatment technologies such as incineration result in a much higher cost per volume treated. Conversely, the corrosive wastes and mixtures with corrosive wastes are very inexpensive to neutralize, resulting in a very low cost per volume treated.

TABLE VI-6.—THIRD THIRD RULE VOLUMES AND INCREMENTAL COST BY WASTE TYPE

[in million gallons and million dollars per year]

	Vol- ume	Incremental	
		Cost	\$/Vol.
Ignitable (D001), corrosive (D002), and reactive wastes (D003).....	36	\$30.8	\$0.86
EP toxic wastes (D004-D017) .....	141	110.5	0.78
Listed wastes.....	3	18.4	6.13

<sup>2</sup> Summary of Ecological Risks, Assessment Methods, and Risk Management Decision in Superfund and RCRA (EPA-230-03-89-046) June 1989.

TABLE VI-6.—THIRD THIRD RULE VOLUMES AND INCREMENTAL COST BY WASTE TYPE—Continued

[in million gallons and million dollars per year]

	Vol- ume	Incremental	
		Cost	\$/Vol.
Mixtures of wastes.....	135	33.7	0.25
CBI wastes.....	64	65.5	1.02
Total.....	379	258.9	0.68

Five characteristic wastes contribute over 40 percent of the incremental cost of the rule as shown in Table VI-7. EP Toxic wastes for chromium (D007) and lead (D008) are the two single wastes that would incur the most incremental cost, primarily due to their volumes. By volume, D007 and D008 are the two largest individual wastes addressed by the proposed rule. D007 wastes are generally treated by chromium reduction in combination with other treatment steps depending on their characteristics.

Similarly, D008 wastes would be treated by several different techniques, primarily involving precipitation and stabilization.

TABLE VI-7.—WASTES INCURRING THE MOST INCREMENTAL COST

	Cost (\$Mill./yr)	% of total incr. cost
CBI Wastes.....	66	25
D007, EP toxic for chromium.....	36	14
D008, EP toxic for lead.....	36	14
D004, EP toxic for arsenic.....	16	6
D001, ignitable.....	13	5
D003, reactive.....	11	4

The cost of treating D002 corrosive wastes attributed to the proposed rule may be overestimated by as much as \$6 million per year because some of these wastes may be treated due to the California List Land Disposal Restrictions rule (52 FR 25760). That rule established a performance standard prohibiting land disposal of wastes with a pH less than 2, while the proposed rule would establish a technology-based standard of neutralization. The Agency does not have data on how facilities are meeting the California List standard. Rather than make assumptions about the post-California List practices, the Agency chose to overestimate costs by attributing the entire cost of neutralizing D002 acidic wastes to this proposed rule.

### 4. Economic Impacts

Table VI-8 summarizes the cost and economic impact of the proposed rule.



Compliance costs are the tax-adjusted revenue requirements needed to fund the incremental costs discussed above. Significantly affected facilities are those who either need to increase costs by more than 5 percent or their compliance costs exceed 5 percent of their cash from operations.

TABLE VI-8.—SUMMARY OF ECONOMIC IMPACT BY TYPE OF FACILITY

Economic impact	Type of facility			Total
	Noncommercial	Commercial	Generator	
Compliance cost (\$Mill.).....	29	230	221	* 251
Affected facilities.....	72	39	1,389	1,461
Significantly affected.....	8	NA	554	562
Estimated closures.....	2	NA	10	12
Affected industry groups.....	15	15	17	** 23

\* Total tax-adjusted compliance cost is less than the sum of compliance cost by facility type because there are noncommercial processes at commercial facilities.

\*\* Some industry sectors are included under more than one type of facility. Therefore the sum of the three facility types is more than the total.

The economic analysis estimates that the effects of the proposed rule would be distributed over a wide range of industries rather than concentrated in a few. Facilities in 23 major industrial groups (two-digit SIC) are affected by the proposed rule. Significantly affected facilities are found in 8 of these industrial groups. The two groups most affected by the proposed rule are SIC 34 and SIC 28, with 168 and 64 significantly affected generators, respectively.

The analysis estimates that 12 facilities would close as a result of the proposed rule. By comparison, the First Third rule was estimated to result in almost 200 closures.

Generators are the type of facility that incurs the largest economic impact. The analysis estimates that 88 percent of the compliance cost will be borne by generators. Also, almost 40 percent of the affected generators will be significantly affected. Of the 12 potential closures discussed above, 10 are generators, which is less than 2 percent of the 554 significantly affected generators.

The TSDR survey identified only 3 small businesses that currently land dispose Third Third waste. None of the 3 are significantly affected under the proposed rule.

For the Third Thirds Final Rule RIA, the Agency expects the results of the

1988 "National Survey of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated under RCRA" to be available to support the analysis. Also, a plant-specific analysis for generators will be considered if the data are available in time for the analysis. Additional small businesses possibly affected by the rule may be identified at that time.

#### B. Regulatory Flexibility Analysis—Surface Disposed Wastes

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, whenever an Agency is required to publish a notice of rulemaking for a proposed rule, it must prepare and make available for public comment a Regulatory Flexibility Analysis (RFA) that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small governmental jurisdictions). This analysis is unnecessary, however, if the Agency's Administrator certifies that the rule will not have a significant economic effect on a substantial number of small entities.

EPA evaluated the economic effect of the proposed rule on small entities, here defined as firms employing fewer than 50 persons. Because of data limitations, the Agency was unable to include generators of large quantities of Third Third wastes. The small business population therefore included only two groups: all noncommercial TSDFs employing fewer than 50 persons and all small quantity generators (SQGs) that were also small businesses. As a result, the effect of the proposed rule on small businesses is underestimated. However, the Agency would not expect the conclusions of the small business analysis to change significantly if the generator data were available.

According to EPA's guidelines for conducting an RFA, if over 20 percent of the population of small businesses, small organizations, or small government jurisdictions is likely to experience financial distress based on the costs of the rule, then the Agency is required to consider that the rule will have a significant effect on a substantial number of small entities and to perform a formal RFA. EPA has examined the proposed rule's potential effects on small entities as required by the Regulatory Flexibility Act.

The economic analysis identified only six small businesses potentially affected by the proposed rule. None of these six would be significantly affected. The Administrator therefore certifies that Part 268 will not have significant economic effects on a substantial number of small entities. As a result of

this finding, the Agency has not prepared a formal RFA.

#### C. Regulatory Impact Analysis—Underground Injected Wastes

The Agency has completed a separate regulatory impact analysis for underground injected wastes affected by today's proposed rule.

Sixty-five injection facilities, injecting approximately 6.5 billion gallons of Third Third wastes annually, will be required to either treat wastes or file "no migration" petitions as outlined in 40 CFR 148.20 (See 53 FR 28118). The addition of these facilities will contribute substantially to compliance costs already incurred by injection well owners and operators managing hazardous wastes regulated by previous rulemaking.

The Agency analyzed costs and benefits using the same approach and methodology developed in the "Regulatory Impact Analysis of the Underground Injection Control Program: Proposed Hazardous Waste Disposal Injection Restrictions" used for the July 26, 1988, final rule (53 FR 28118) and subsequent rulemaking. An analysis was performed to assess the economic effect of associated compliance costs for the additional volume of injected wastes attributable to today's proposed rule. Total compliance costs for injected wastes are estimated at \$54 million annually. Alternative treatment costs are estimated at \$53.7 million annually and petition costs are annualized at \$0.3 million.

The RIA estimates that 17 facilities will eventually treat their wastes, and therefore be significantly affected economically by today's proposed rule.

The benefits outlined in the RIA are generally defined as the reduced human health risk resulting from fewer instances of groundwater contamination. Potential health risks from Class I hazardous waste injection wells are low, except in a few isolated cases depending on proximity to well location, the geologic setting, unplugged boreholes, and injection well grout seal failure.

#### D. Regulatory Flexibility Analysis—Underground Injection Wastes

The economic analysis identified only six small businesses potentially affected by part 268 of the proposed rule. None of these six would be significantly affected.

Owners and operators of hazardous waste injection wells are generally major chemical, petrochemical, and other manufacturing companies. The Agency is not aware of any small



entities of injection wells that would be affected by part 148 of today's proposed rule.

The Administrator therefore certifies that part 148 and part 268 will not have significant economic effects on a substantial number of small entities. As a result of this finding, the Agency has not prepared a formal RFA.

#### *E. Paperwork Reduction Act*

All information collection requirements in this proposed rule were promulgated in previous land disposal restrictions rulemakings and approved by the Office of Management and Budget (OMB) at that time. Since there are no new information collection requirements being promulgated today, (including those for the Underground Injection Control Program) an Information Collection Request has not been prepared.

#### *F. Review of Supporting Documents*

The primary source of information on current land disposal practices and industries affected by this rule was EPA's 1986 "National Survey of Hazardous Waste Treatment, Storage, Disposal, and Recycling Facilities" (the TSDR Survey). The average quantity of waste contributed by generator facilities was obtained from EPA's "National Survey of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated under RCRA in 1981" (April 1984).

Waste stream characterization data and engineering costs of waste management were based on the following EPA documents:

- "Characterization of Waste Streams Listed in 40 CFR part 261 Waste Profiles," Vols. I and II (August 1985);
- "Characterization of Constituents from Selected Waste Streams Listed in 40 CFR part 261," Vols. I and II (August 1985);
- RCRA background and listing documents for 40 CFR part 261;
- RCRA Section 3007 industry studies;
- "RCRA Risk-Cost Analysis Model, Appendix A: Waste Stream Data Base" (March 1984);
- Source assessment documents for various industries; and
- "1986-1987 Survey of Selected Firms in the Commercial Hazardous Waste Management Industry: Final Report" (March 1988).

Financial information for the economic impact analysis was obtained from the 1982 Census of Manufacturers and 1984 Annual Survey of Manufacturers. Producer price indices were used to restate 1984 dollars in 1987 terms. For the final rule RIA, the Agency

will use these producer price indices to restate 1984 dollars in 1990 terms.

#### **VII. List of Subjects in 40 CFR Part 148, 261, 264, 265, 268, and 271**

Administrative practice and procedure, Confidential business information, Environmental protection, Hazardous materials, Hazardous materials transportation, Hazardous waste, Imports, Indian lands, Insurance, Intergovernmental relations, Labeling, Packaging and containers, Penalties, Recycling, Reporting and recordkeeping requirements, Security measures, Surety bonds, Waste treatment and disposal, Water pollution control, Water supply.

Dated: November 9, 1989.

**F. Henry Habicht,**  
*Acting Administrator.*

For the reasons set out in the preamble, Title 40, Chapter I, of the Code of Federal Regulations is proposed to be amended as follows:

#### **PART 148—HAZARDOUS WASTE INJECTION RESTRICTIONS**

1. The authority citation for part 148 continues to read as follows:

Authority: Section 3004, Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq.

2. Section 148.14 is amended by redesignating paragraphs (d), (e), (f), and (g) as paragraphs (e), (f), (g), and (i); by revising the introductory text of newly redesignated paragraph (i); and by adding new paragraphs (d) and (h) to read as follows:

##### **§ 148.14 Waste specific prohibitions—first third wastes.**

(d) Effective May 8, 1990, the wastes specified in 40 CFR 261.31 as EPA Hazardous Waste number F006 wastewaters and F019 wastewaters; the wastes specified in 40 CFR 261.32 as K004, K008, K014 nonwastewaters, K015 nonwastewaters, K017, K021 wastewaters, K022 wastewaters, K031, K035, K046 reactive nonwastewaters and all wastewaters, K060 wastewaters, K061 wastewaters, K069 calcium sulfate nonwastewaters and all wastewaters, K073, K083, K084, K085, K086 all but solvent washes, K101 high arsenic nonwastewaters, K102 high arsenic nonwastewaters, and K106; and the wastes specified in 40 CFR Part 261.33 as EPA Hazardous Waste numbers P001, P004, P005, P010, P011, P012, P015, P016, P018, P020, P036, P037, P048, P050, P058, P059, P068, P069, P070, P081, P082, P084, P087, P092, P102, P105, P108, P110, P115, P120, P122, P123, U007, U009, U010, U012, U016, U018, U019, U022, U029, U031, U036, U037, U041, U043, U044,

U046, U050, U051, U053, U061, U063, U064, U066, U067, U074, U077, U078, U086, U089, U103, U105, U108, U115, U122, U124, U129, U130, U133, U134, U137, U151, U154, U155, U157, U158, U159, U171, U177, U180, U185, U188, U192, U200, U209, U210, U211, U219, U220, U226, U227, U228, U237, U238, U248, and U249 are prohibited from underground injection.

(h) Effective May 8, 1992, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K011 wastewaters, K013 wastewaters, and K014 wastewaters are prohibited from underground injection.

(i) The requirements of paragraphs (a) through (h) of this section do not apply:

3. Section 148.15 is amended by redesignating paragraphs (d) and (e) as paragraphs (e) and (f); by revising the introductory text of newly redesignated paragraph (f); and by adding adding new paragraph (d) to read as follows:

##### **§ 148.15 Waste specific prohibitions—second third wastes.**

(d) Effective May 8, 1990, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K025 wastewaters, K029 wastewaters, K041, K042, K095 wastewaters, K096 wastewaters, K097, K098, and K105; and the wastes specified in 40 CFR 261.33 as P002, P003, P007, P008, P014, P026, P027, P049, P054, P057, P060, P066, P067, P072, P107, P112, P113, P114, U002, U003, U005, U008, U011, U014, U015, U020, U021, U023, U025, U026, U032, U035, U047, U049, U057, U059, U060, U062, U070, U073, U080, U083, U092, U093, U094, U095, U097, U098, U099, U101, U106, U109, U110, U111, U114, U116, U119, U127, U128, U131, U135, U138, U140, U142, U143, U144, U146, U147, U149, U150, U161, U162, U163, U164, U165, U168, U169, U170, U172, U173, U174, U176, U178, U179, U189, U193, U196, U203, U205, U206, U208, U213, U214, U215, U216, U217, U218, U239, U244 are prohibited from underground injection.

(f) The requirements of paragraphs (a) through (f) of this section do not apply:

4. Section 148.16 is amended by redesignating paragraph (c) as paragraph (g); by revising the introductory text of newly redesignated paragraph (g); and by adding new paragraphs (c), (d), (e), and (f) to read as follows:



### § 148.16 Waste specific prohibitions—third third wastes.

(c) Effective May 8, 1990, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K002, K003, K005 wastewaters, K006, K007 wastewaters, K023, K026, K032, K033, K034, K093, K094 and K100 wastewaters; the wastes specified in 40 CFR 261.33 as P006, P009, P017, P022, P023, P024, P028, P031, P033, P034, P038, P042, P045, P046, P047, P051, P056, P064, P065, P073, P075, P076, P077, P078, P088, P093, P095, P096, P099, P101, P103, P109, P116, P118, P119, U001, U004, U006, U017, U024, U027, U030, U033, U034, U038, U039, U042, U045, U048, U052, U055, U056, U068, U071, U072, U075, U076, U079, U081, U082, U084, U085, U087, U088, U090, U091, U096, U112, U113, U117, U118, U120, U121, U123, U125, U126, U132, U136, U139, U141, U145, U148, U152, U153, U156, U160, U166, U167, U181, U182, U183, U184, U186, U187, U191, U194, U197, U201, U202, U204, U207, U222, U225, U234, U236, U240, U243, and U247; and the wastes identified in 40 CFR 261.23 or 261.24 as hazardous based on a characteristic alone, designated as D001, D002 (nonwastewaters), D003 (nonwastewaters), D004, D005, D006, D007 (nonwastewaters), D008, D010, D011, D012, D013, D014, D015, D016, and D017 are prohibited from underground injection.

(d) Effective May 8, 1992, the wastes identified in 40 CFR 261.23 or 261.24 as hazardous based on a characteristic alone, designated as D002 wastewaters, D003 wastewaters, D007 wastewaters, and D009 nonwastewaters are prohibited from underground injection.

(e) Effective May 8, 1992, multi-source leachate that is derived from disposal of any listed waste and leachate that exhibits a characteristic of hazardous waste is prohibited from underground injection.

(f) Effective May 8, 1990, mixed radioactive/hazardous waste in 40 CFR 268.10, 268.11, and 268.12, that are mixed radioactive and hazardous wastes, are prohibited from underground injection.

(g) The requirements of paragraphs (a) through (f) of this section do not apply:

### PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTES

#### I. In Part 261:

1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

### Subpart A—General

#### § 261.2 [Amended]

2. Section 261.2(b) is amended by adding paragraph (b)(4) to read as follows:

(b) \* \* \*

(4) Residues from spills of commercial chemical products (as defined in § 261.33(d)) that are not legitimately recycled in accordance with § 261.2(e) within 90 days of the date of the spill. Such residues that are legitimately recycled in accordance with § 261.2(e) after 90 days of the date of the spill will cease to be solid wastes when recycled.

3. Table 1 in § 261.2(c) is revised by adding a line at the end to read as follows:

Residues from spills of commercial chemical products as described at 40 CFR 261.2(b)(4) .....	(*)	(*)	(*)	(*)
---	-----	-----	-----	-----

4. The introductory text and paragraph (c) of § 261.33 are revised to read as follows (the comment paragraph remains):

#### § 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in § 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land or are contained in products that are applied to the land in lieu of their original intended use or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel, or when they are residues described in § 261.33(d) and are not recycled in accordance with § 261.2(e) within 90 days of the initial spill event.

(c) Any residue remaining in a container or inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, unless the container is empty as defined in § 261.7(b)(3) of the chapter.

### PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES

#### I. In Part 264:

1. The authority citation for Part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

### Subpart B—General Facility Standards

2. The comment following paragraph (a)(2) of § 264.13 is revised to read as follows:

#### § 264.13 General waste analysis.

(a)(1) \* \* \*

(2) \* \* \*

[Comment: For example, the facility's records of analysis performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by paragraph (a)(1) of this section. For purposes of compliance with Part 268, however, the generator may supply such information only if EPA has specifically authorized the generator to do so in approving the waste analysis plan. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

### Subpart K—Surface Impoundments

3. The introductory text of § 264.229 is revised to read as follows:

#### § 264.229 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment, unless the waste or impoundment satisfies all requirements of part 268, and:

### Subpart L—Waste Piles

4. The introductory text of § 264.256 is revised to read as follows:

#### § 264.256 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a waste pile unless the waste or waste pile satisfies all requirements of part 268, and:



**Subpart M—Land Treatment**

5. The introductory text of § 264.281 is revised to read as follows:

**§ 264.281 Special requirements for ignitable or reactive waste.**

The owner or operator must not apply ignitable or reactive waste to the treatment zone unless the waste or the treatment zone meets all applicable requirements of part 268, and:

\* \* \* \* \*

**Subpart N—Landfills**

6. The introductory text of paragraph (a) of § 264.312 is revised to read as follows:

**264.312 Special requirements for ignitable or reactive waste.**

(a) Except as provided in paragraph (b) of this section, and in § 264.316, ignitable or reactive waste must not be placed in a landfill, unless the waste or landfill meets all applicable requirements of part 268 and:

\* \* \* \* \*

7. In § 264.316, paragraph (f) is added to read as follows:

**§ 264.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).**

\* \* \* \* \*

(f) Hazardous waste in the inside containers meets the applicable treatment standards under §§ 268.41 and 268.43. [Lab packs which contain only waste codes listed in Appendix IV to part 268 may be incinerated according to the provisions of § 268.42. The residuals from such incineration are no longer prohibited from land disposal. Lab packs which contain only waste codes listed in Appendix V to part 268 may be stabilized according to the provisions of § 268.42. The residuals from such stabilization are no longer prohibited from land disposal.]

**PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES**

I. In part 265:

1. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, and 6935.

**Subpart B—General Facility Standards**

2. The comment at the end of paragraph (a) of § 265.13 is revised to read as follows:

**§ 265.13 General waste analysis.**

(a)(1) \* \* \*

(2) \* \* \*

[Comment: For example, the facility's records of analysis performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a)(1) of this section.]

\* \* \* \* \*

**Subpart K—Surface Impoundments**

3. The introductory text of § 265.229 is revised to read as follows:

**§ 265.229 Special requirements for ignitable or reactive waste.**

Ignitable or reactive waste must not be placed in a surface impoundment, unless the waste or impoundment satisfies all requirements of part 268, and:

\* \* \* \* \*

**Subpart L—Waste Piles**

4. The introductory text of § 265.256 is revised to read as follows:

**§ 265.256 Special requirements for ignitable or reactive waste.**

Ignitable or reactive waste must not be placed in a waste pile unless the waste or waste pile satisfies all requirements of part 268, and:

\* \* \* \* \*

**Subpart M—Land Treatment**

5. The introductory text of § 265.281 is revised to read as follows:

**§ 265.281 Special requirements for ignitable or reactive waste.**

The owner or operator must not apply ignitable or reactive waste to the treatment zone unless the waste or the treatment zone meets all applicable requirements of part 268, and:

\* \* \* \* \*

**Subpart N—Landfills**

6. The introductory text of § 265.312 is revised to read as follows:

**§ 265.312 Special requirements for ignitable or reactive waste.**

(a) Except as provided in paragraph (b) of this section, and in § 265.316, ignitable or reactive waste must not be placed in a landfill, unless the waste or landfill meets all applicable requirements of part 268, and:

\* \* \* \* \*

7. In section 265.316, paragraph (f) is added to read as follows:

**§ 265.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).**

\* \* \* \* \*

(f) Hazardous waste in the inside containers meets the applicable treatment standards under §§ 268.41 and 268.43. [Lab packs which contain only waste codes listed in Appendix IV to part 268 may be incinerated according to the provisions of § 268.42. The residuals from such incineration are no longer prohibited from land disposal. Lab packs which contain only waste codes listed in Appendix V to part 268 may be stabilized according to the provisions of § 268.42. The residuals from such stabilization are no longer prohibited from land disposal.]

**PART 268—LAND DISPOSAL RESTRICTIONS**

I. In part 268:

1. The authority citation for part 268 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

**Subpart A—General**

2. In § 268.7, paragraphs (a) (7), (8), and (9) are added, and paragraphs (b) introductory text and (c)(2) are revised to read as follows:

**§ 268.7 Waste analysis and recordkeeping.**

(a) \* \* \*

(7) If a generator is managing a lab pack which contains only organic hazardous wastes specified in Appendix IV of this part, with each shipment of waste the generator must certify that the lab pack contains only the waste codes identified in Appendix IV. The generator must also comply with the requirements in (a)(1), (b)(2) and (c) of this section.

(i) The certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that to support this certification I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste, and that the lab pack contains only waste codes specified in Appendix IV to part 268. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(8) If a generator is managing a lab pack that contains only the constituents identified in Appendix V to this part, the generator must certify that the lab pack contains only constituents identified in Appendix V. The generator must also comply with the requirements in (a)(1), (b)(2) and (c) of this section.



(i) The certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that to support this certification I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste, and that the lab pack contains only those constituents specified in Appendix V to part 268. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(9) Small quantity generators with tolling agreements pursuant to 40 CFR 262.20(e) must comply with the applicable notification and certification requirements of paragraph (a) of this section for the initial shipment of the waste subject to the agreement. Such generators must retain on-site a copy of such notification and certification, together with the tolling agreement, for at least five years from the date of the original shipment. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

(b) The frequency with which treatment facilities must test their waste will be determined by the Regional Administrator or his designate, and will be based on the criteria included in §§ 264.13 or 265.13, and will be specified in the facility's waste analysis plan as required by § 264.13 or § 265.13.

(c) \*\*\*

(2) Test the waste, or an extract of the waste or treatment residue developed using the test method described in Appendix I of this part or using any methods required by generators under § 268.32 of this part, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in subpart D of this part and all applicable prohibitions set forth in § 268.32 of this part or in RCRA section 3004(d). The frequency with which disposal facilities must test their waste will be determined by the Regional Administrator or his designate, and will be based on the criteria included in § 264.13 or § 265.13, and will be specified in the facility's waste analysis plan as required by § 264.13 or § 265.13.

3. Section 268.9 is added to read as follows:

**§ 268.9 Special rules regarding wastes that exhibit a characteristic.**

(a) The initial generator must determine each waste code applicable to the waste in order to determine the

applicable treatment standards under subpart D. For purposes of part 268, waste will carry a waste code designation for any listing under part 261 subpart D, where appropriate, and also one or more waste code designations under part 261 subpart C, where the waste exhibits the relevant characteristic.

(b) Where a prohibited waste is both listed under part 261 subpart D and exhibits a characteristic under part 261 subpart C, the treatment standard for the waste code listed in part 261 subpart D will operate in lieu of the standard for the waste code under part 261 subpart C, provided that the treatment standard for the listed waste covers the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable waste codes.

(c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under part 261 subpart C may be land disposed unless the treatment level under part 268 is higher than the relevant level in part 261 subpart C and the waste meets the part 268 level.

**Subpart C—Prohibitions on Land Disposal**

4. Section 268.35 is added to read as follows:

**§ 268.35 Waste specific prohibitions—third third wastes.**

(a) Effective May 8, 1990, the following wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F006 (wastewaters) F019 (wastewaters); the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K002; K003; K004 (wastewaters); K005 (wastewaters); K006; K008 (wastewaters); K011 (wastewaters); K013 (wastewaters); K014 (wastewaters); K017; K021 (wastewaters); K022 (wastewaters); K025 (wastewaters); K026; K029 (wastewaters); K031 (wastewaters); K032; K033; K034; K035; K041; K042; K046 (wastewaters); K060 (wastewaters); K061 (wastewaters); K069 (wastewaters); K071 (wastewaters); K073; K083 (wastewaters); K084 (wastewaters); K085; K095 (wastewaters); K096 (wastewaters); K097; K098; K100 (wastewaters); K101 (wastewaters); K102 (wastewaters); K105; K106 (wastewaters); K111; and K112; the wastes specified in 40 CFR 261.33(e) as EPA Hazardous Waste Nos. P001; P002; P003; P004; P005; P006; P007; P008; P009; P010 (wastewaters); P011 (wastewaters);

P012 (wastewaters); P014; P015 (wastewaters); P016; P017; P018; (wastewaters); P019 (wastewaters); P020; P022; P023; P024; P026; P027; P028; P031; P033; P034; P036 (wastewaters); P037; P038 (wastewaters); P042; P045; P046; P047; P048; P049; P050; P051; P054; P056; P057; P058; P059; P060; P064; P065 (wastewaters); P066; P067; P068; P069; P070; P072; P073 (wastewaters); P075; P076; P077; P078; P081; P082; P084; P087 (wastewaters); P088; P092 (wastewaters); P093; P095; P096; P101; P102 P103 (wastewaters); P105; P107; P108; P109; P110; P112; P113; P114 (wastewaters); P115; P116; P118; P119; P120; P122; and P123; and the wastes specified in 40 CFR 261.33(f) as EPA Hazardous Waste Nos. U001; U002; U003; U004; U005; U006; U007; U008; U009; U010; U011; U012; U014; U015; U016; U017; U018; U019; U020; U021; U022; U023; U024; U025; U026; U027; U029; U030; U031; U032; U033; U034; U035; U036; U037; U038; U039; U041; U042; U043; U044; U045; U046; U047; U048; U049; U050; U051; U052; U053; U055; U056; U057; U059; U060; U061; U062; U063; U064; U066; U067; U068; U070; U071; U072; U073; U074; U075; U076; U077; U078; U079; U080; U081; U082; U083; U084; U085; U086; U089; U090; U091; U092; U093; U094; U095; U096; U097; U098; U099; U101; U103; U105; U106; U108; U109; U110; U111; U112; U113; U114; U115; U116; U117; U118; U119; U120 (wastewaters); U121; U122; U123; U124; U125; U126; U127; U128; U129; U130; U131; U132; U133; U134; U135; U136 (wastewaters); U137; U138; U139; U140; U141; U142; U143; U144; U145; U146; U147; U148; U149; U150; U151 (wastewaters); U152; U153; U154; U155; U156; U157; U158; U159; U160; U161; U162; U163; U164; U165; U166; U167; U168; U169; U170; U171; U172; U173; U174; U176; U177; U178; U179; U180; U181; U182; U183; U184; U185; U186; U187; U188; U189; U191; U192; U193; U194; U196; U197; U200; U201; U202; U203; U204 (wastewaters); U205 (wastewaters); U206; U207; U208; U209; U210; U211; U213; U214; U215; U216; U217; U218; U219; U220; U222; U225; U226; U227; U228; U234; U236; U237; U238; U239; U240; U243; U244; U246; U247; U248; U249; and the following wastes identified as hazardous based on a characteristic alone: D001 (other than combusted sludge/solids) D002, D003, D004 (wastewaters), D005, D006 (wastewaters); D007, D008, D009 (wastewater), D010 (wastewaters), D011, D012, D013, D014, D015, D016, and D017 are prohibited from land disposal.

(b) Effective August 8, 1990, the following constituents contained in



wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K048 (nonwastewaters); K049 (nonwastewaters); K050 (nonwastewaters); K051 (nonwastewaters); and K052 (nonwastewaters) are prohibited from land disposal: benzo(a)pyrene; ortho-cresols; para-cresols; di-n-butyl phthalate; and phenol.

(c) Effective May 8, 1991, the following constituent contained in wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K048 (wastewaters); K049 (wastewaters); K050 (wastewaters); K051 (wastewaters); and K052 (wastewaters) is prohibited from land disposal: cyanide.

(d) Effective May 8, 1991, the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K048 (nonwastewaters); K049 (nonwastewaters); K050 (nonwastewaters); K051 (nonwastewaters); and K052 (nonwastewaters) are prohibited from land disposal, except as provided in paragraph (b) of this section.

(e) Effective May 8, 1992, the following waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F019 (nonwastewaters); the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste Nos. K031 (nonwastewaters); K071 (nonwastewaters); K084 (nonwastewaters); K101 (nonwastewaters); K102 (nonwastewaters); K106 (nonwastewaters); the wastes specified in 40 CFR 261.33(e) as EPA Hazardous Waste Nos. P010 (nonwastewaters); P011 (nonwastewaters); P012 (nonwastewaters); P015 (nonwastewaters); P019 (nonwastewaters); P036 (nonwastewaters); P038 (nonwastewaters); P065 (nonwastewaters); P073 (nonwastewaters); P087 (nonwastewaters); P092 (nonwastewaters); P103 (nonwastewaters); P114 (nonwastewaters); the wastes specified in 40 CFR 261.33(f) as EPA Hazardous Waste Nos. U136 (nonwastewaters); U151 (nonwastewaters); U204 (nonwastewaters); and U205 (nonwastewaters); and the following wastes identified as hazardous based on a characteristic alone: D001 (nonatomizable sludge/solids); D004 (nonwastewaters); D006 (nonwastewaters); D009 (nonwastewaters); and D010 (nonwastewaters) are prohibited from land disposal.

(f) Effective May 8, 1992, multi-source leachate nonwastewaters in the form of

non-atomizable sludges and solids that are derived from disposal of any listed waste and leachate that exhibits a characteristic of hazardous waste is prohibited from land disposal.

(g) Effective May 8, 1992, hazardous wastes listed in 40 CFR 268.10, 268.11, and 268.12 that are mixed radioactive/hazardous wastes are prohibited from land disposal.

(h) Effective May 8, 1992, the wastes specified in this section having a treatment standard in subpart D of this part based on incineration, mercury retorting, vitrification, or wet-air oxidation and which are contaminated soil and debris are prohibited from land disposal.

(i) Between May 8, 1990 and August 8, 1990, wastes included in paragraph (b) of this section may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(j) Between May 8, 1990 and May 8, 1991, wastes included in paragraphs (c) and (d) of this section may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(k) Between May 8, 1990, and May 8, 1992, wastes included in paragraphs (e), (f), (g), and (h) of this section may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(l) The requirements of paragraphs (a), and (b) of this section do not apply if:

(1) The wastes meet the applicable standards specified in subpart D of this part; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition.

(m) To determine whether a hazardous waste listed in §§ 268.10, 268.11, and 268.12 exceeds the applicable treatment standards specified in §§ 268.41 and 268.43, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable subpart D levels, the waste is prohibited from land disposal, and all requirements of part 268 are applicable, except as otherwise specified.

## Subpart D—Treatment Standards

5. In § 268.41, Table CCWE is amended by adding the following subtables to Table CCWE in alphabetical/numerical order by EPA Hazardous Waste Number:

### § 268.41 Treatment standards expressed as concentrations in waste extract.

(a) \* \* \*

TABLE CCWE—CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT

	Concentration (in mg/l)
D004 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
D006 nonwastewaters:	
Cadmium.....	14
D007 nonwastewaters	
Chromium (Total).....	.094
D008 nonwastewaters; Low Lead Subcategory—less than 2.5% Lead:	
Lead.....	.51
D009 nonwastewaters; Low Mercury Subcategory—less than 16 mg/kg Hg:	
Mercury.....	.025
D010 nonwastewaters (based on EP leachate):	
Selenium.....	5.6
D011 nonwastewaters:	
Silver.....	.072
F019 nonwastewaters:	
Chromium (Total).....	5.2
F024 nonwastewaters (See also Table CCW in 268.43):	
Chromium (Total).....	.073
Lead.....	.021
Nickel.....	.088
K001 nonwastewaters (see also Table CCW in 268.43):	
Lead.....	.51
K002 nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K003 nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K004 nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K005 nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K006 (anhydrous) nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K006 (hydrated) nonwastewaters:	
Chromium (Total).....	5.2
K007 nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K008 nonwastewaters:	
Chromium (Total).....	.094
Lead.....	.37
K015 nonwastewaters (see also Table CCW in 268.43):	
Chromium (Total).....	1.7
Nickel.....	.048
K021 nonwastewaters (based on EP leachate) (see also Table CCW in 268.43):	
Antimony.....	.23



TABLE CCWE—CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT—Continued

	Concentration (in mg/l)
K028 nonwastewaters (see also Table CCW in 268.43):	
Chromium (Total).....	.073
Lead.....	.021
Nickel.....	.088
K031 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
K046 nonwastewaters:	
Lead.....	.18
K069 nonwastewaters; Calcium Sulfate Subcategory:	
Cadmium.....	.14
Lead.....	.24
K071 nonwastewaters; Low Mercury Subcategory—less than 16 mg/kg Hg:	
Mercury.....	.025
K083 nonwastewaters (see also Table CCW in 268.43):	
Nickel.....	.088
K084 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
K086 nonwastewaters (see also Table CCW in 268.43):	
Chromium (Total).....	.094
Lead.....	.37
K100 nonwastewaters:	
Cadmium.....	.066
Chromium (Total).....	5.2
Lead.....	.51
K101 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
K102 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
K106 nonwastewaters; Low Mercury Subcategory—less than 16 mg/kg Hg:	
Mercury.....	.025
P010 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
P011 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
P012 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
P036 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
P038 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
P103 nonwastewaters (based on EP leachate):	
Selenium.....	5.6
P110 nonwastewaters:	
Lead.....	.51
P114 nonwastewaters (based on EP leachate):	
Selenium.....	5.6
U032 nonwastewaters:	
Chromium (Total).....	.094
U051 nonwastewaters (see also Table CCW in 268.43):	
Lead.....	.51
U136 nonwastewaters (based on EP leachate):	
Arsenic.....	5.6
U144 nonwastewaters:	
Lead.....	.51

TABLE CCWE—CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT—Continued

	Concentration (in mg/l)
U145 nonwastewaters:	
Lead.....	.51
U146 nonwastewaters:	
Lead.....	.51
U151 nonwastewaters; Low Mercury Subcategory—less than 16 mg/kg Hg:	
Mercury.....	.025
U204 nonwastewaters (based on EP leachate):	
Selenium.....	5.6
U205 nonwastewaters (based on EP leachate):	
Selenium.....	5.6
Multi-Source Leachate nonwastewaters (see also Table CCW in 268.43):	
Antimony.....	.23
Arsenic.....	5.6
Barium.....	100
Cadmium.....	.066
Chromium (Total).....	5.0
Lead.....	.51
Mercury.....	.2
Nickel.....	.32
Selenium.....	5.6
Silver.....	.072
Thallium.....	5.6

6. In § 268.42, paragraphs (a)(5), (6), and (7) are added to read as follows:

**§ 268.42 Treatment standards expressed as specified technologies.**

(a) \* \* \*

(5) Lab packs as defined in 40 CFR 264.316 and 265.316 that contain only organic hazardous wastes specified in Appendix IV of this Part may be incinerated. Such incineration must be in accordance with the requirements of part 264, subpart O, or part 265, subpart O. These treatment standards *do not* apply where the individual waste contained therein meets the applicable treatment standards in §§ 268.41 and 268.43, or the lab pack contains hazardous waste codes listed in Appendix V, or other wastes not specified in Appendix IV to this part. Such lab packs must also comply with the requirements for lab packs specified in 40 CFR 264.316 and 265.316, whichever is applicable.

(6) Lab packs as defined in 40 CFR 264.316 and 265.316 that contain only inorganic hazardous constituents identified in Appendix V of this part may be stabilized using Portland cement in a 20 percent binder-to-waste ratio. These treatment standards *do not* apply where individual constituents contained therein meet the applicable treatment standards in §§ 268.41 and 268.43, or the

lab pack contains any constituents other than those specified in Appendix V to this part. Such lab packs must also comply with the requirements for lab packs specified in 40 CFR 264.316 and 265.316, whichever is applicable.

(7) The following wastes identified in §§ 261.21, 261.22, 261.23, 261.24, 268.10, 268.11, and 268.12 must be treated by the specified technologies:

Thermal destruction as a method of treatment for nonwastewater forms of:

P006—Aluminum phosphide  
P009—Ammonium picrate  
P068—Methyl hydrazine  
P081—Nitroglycerin  
P096—Phosphine  
P105—Sodium azide  
P112—Tetranitromethane  
P122—Zinc phosphide (>10%)  
U023—Benzotrithloride  
U086—N,N-Diethylhydrazine  
U096—*a,a*-Dimethyl benzyl hydroperoxide  
U098—1,1-Dimethylhydrazine  
U099—1,2-Dimethylhydrazine  
U103—Dimethyl sulfate  
U109—1,2-Diphenylhydrazine  
U133—Hydrazine  
U135—Hydrogen sulfide  
U160—Methyl ethyl ketone peroxide  
U189—Phosphorus sulfide  
U249—Zinc phosphide (<10%)

Incineration as a method of treatment for nonwastewater forms of:

K025—nonwastewaters  
P002—1-Acetyl 2-thiourea  
P007—Muscimol (5-Aminoethyl 3-isoxazolol)  
P008—4-Aminopyridine  
P014—Benzene thiol (Thiophenol)  
P016—Bis-chloromethyl ether  
P017—Bromoacetone  
P018—Brucine  
P022—Carbon disulfide  
P023—Chloroacetaldehyde  
P026—1-(*o*-Chlorophenyl) thiourea  
P027—3-Chloropropionitrile  
P028—Benzyl chloride  
P034—2-cyclohexyl-4,6-dinitrophenol  
P042—Epinephrine  
P045—Thiofanox  
P046— $\alpha$ ,  $\alpha$ -Dimethylphenethylamine  
P047—4,6-dinitrocresol salts  
P049—2,4-Dithiobiuret  
P054—Aziridine  
P057—2-Fluoroacetamide  
P058—Fluoroacetic acid, sodium salt  
P064—Isocyanic acid, ethyl ester  
P066—Methomyl  
P067—2-Methylaziridine  
P069—Methylacetonitrile  
P070—Aldicarb  
P072—1-Naphthyl-2-thiourea (Bantu)  
P075—Nicotine and salts  
P084—N-Nitrosomethylvinylamine  
P093—N-Phenylthiourea  
P095—Phosgene  
P108—Strychnine and salts  
P116—Thiosemicarbazide  
P118—Trichloromethanethiol  
U006—Acetyl Chloride  
U007—Acrylamide  
U010—Mitomycin C  
U011—Amitrole



U014—Auramine  
 U015—Azaserine  
 U016—Benz(c)acridine  
 U017—Benzal chloride  
 U020—Benzenesulfonyl chloride  
 U021—Benzidine  
 U026—Chloronaphazine  
 U033—Carbonyl fluoride  
 U034—Trichloroacetaldehyde  
 U035—Chlorambucil  
 U041—n-Chloro-2,3-epoxypropane  
 U042—2-Chloroethyl vinyl ether  
 U046—Chloromethyl methyl ether  
 U049—4-Chloro-o-toluidine hydrochloride  
 U055—Cumene (isopropyl benzene)  
 U056—Cyclohexane  
 U059—Daunomycin  
 U062—Diallate  
 U064—1,2,7,8-Dibenzopyrene  
 U089—Diethyl stilbestrol  
 U090—Dihydrosafrole  
 U091—3,3-Dimethoxybenzidine  
 U092—Dimethylamine  
 U094—7,12-Dimethyl benz(a)anthracene  
 U095—3,3'-Dimethylbenzidine  
 U097—Dimethylcarbomyl chloride  
 U110—Dipropylamine  
 U114—Ethylene bis-dithiocarbamic acid  
 U116—Ethylene thiourea  
 U119—Ethyl methane sulfonate  
 U143—Lasiocarpine  
 U148—Maleic Hydrazide  
 U149—Malononitrile  
 U150—Melphalan  
 U153—Methane thiol  
 U156—Methyl chlorocarbonate  
 U163—N-Methyl N-nitro N-nitroguanidine  
 U164—Methylthiouracil  
 U171—2-Nitropropane  
 U173—N-Nitroso-di-n-ethanolamine  
 U176—N-Nitroso-N-ethylurea  
 U177—N-Nitroso-N-methylurea  
 U178—N-Nitroso-N-methylurethane  
 U186—1,3-Pentadiene  
 U191—2-Picoline  
 U193—1,3-Propane sultone  
 U194—n-Propylamine  
 U200—Reserpine  
 U202—Saccharin and salts  
 U206—Streptozotocin  
 U218—Thioacetamide  
 U219—Thiourea  
 U222—o-Toluidine hydrochloride  
 U234—sym-Trinitrobenzene  
 U236—Trypan Blue  
 U237—Uracil mustard  
 U238—Ethyl carbamate  
 U240—salts and esters of 2,4-D  
 U244—Thiram

Incineration or fuel substitution as methods of treatment for nonwastewater forms of:

P001—Warfarin (>3%)  
 P003—Acrolein  
 P005—Allyl alcohol  
 P088—Endothall  
 P102—Propargyl alcohol  
 U001—Acetaldehyde  
 U008—Acrylic acid  
 U053—Crotonaldehyde  
 U085—1,2,3,4-Diepoxybutane  
 U113—Ethyl acrylate  
 U122—Formaldehyde  
 U123—Formic acid  
 U124—Furan

U125—Furfural  
 U126—Glycidaldehyde  
 U147—Maleic anhydride  
 U154—Methanol  
 U182—Paraldehyde  
 U213—Tetrahydrofuran  
 U248—Warfarin (<3%)

Incineration, fuel substitution, or recovery as methods of treatment for all forms of:

D001—Ignitable liquids subcategory based on 261.21(a)(1)

Incineration or carbon adsorption as a method of treatment for wastewater forms of:

P009—Ammonium picrate  
 P068—Methyl hydrazine  
 P081—Nitroglycerin  
 P112—Tetranitromethane  
 U023—Benzotrichloride  
 U086—N,N-Diethylhydrazine  
 U096—*a,a*-Dimethyl benzyl hydroperoxide  
 U098—1,1-Dimethylhydrazine  
 U099—1,2-Dimethylhydrazine  
 U103—Dimethyl sulfate  
 U109—1,2-Diphenylhydrazine  
 U133—Hydrazine  
 U160—Methyl ethyl ketone peroxide

Incineration, or liquid-liquid extraction followed by steam stripping followed by carbon adsorption as a method of treatment for wastewater (<1% TSS and <4% TOC) forms of:

K025—wastewaters

Incineration of vented\* ignitable gases; or recovery as methods of treatment for all forms of:

\*—Ignitable gases may be vented directly into an incinerator or vented into a suitable adsorbent prior to incineration. Although the gases, once vented, are no longer compressed in a cylinder the Agency does not consider that treatment has occurred until the ignitable gas has been incinerated. Adsorption of the ignitable gas into either a solid or liquid adsorbent is typically a reversible physical process. Thus, the ignitable chemical has not been destroyed.

D001—Ignitable compressed gases based on 261.21(a)(3)

Incineration followed by roasting or retorting of incinerator nonwastewater residues (ash and wastewater treatment sludges from treatment of the incinerator scrubber waters) provided such residues exceed 16 mg/kg total mercury; and scrubber waters from incineration must comply with the 0.030 mg/l wastewater standard as methods of treatment for nonwastewater forms of:

P065—Mercury fulminate  
 P092—Phenyl mercury acetate

Incineration as a method of treatment with incinerator residues meeting the following: (1) ash and wastewater treatment sludges from treatment of the incinerator scrubber waters must

comply with a TCLP concentration of 0.025 mg/l; and (2) scrubber waters must comply with a total concentration of 0.030 mg/l wastewater standard:

D009—Hydraulic oil contaminated with mercury radioactive materials subcategory

Vitrification or stabilization as methods of treatment for nonwastewater forms of:

P114—Thallium (I) selenite

Deactivation as a method of treatment for all forms of:

D001—Ignitable reactives based on 261.21(a)(2)

D001—Oxidizers based on 261.21(a)(4)

D003—Explosives based on 261.23(a) (3), (6), (7) and (8)

D003—Water reactives based on 261.23(a) (2), (3), and (4)

D003—Other reactives based on 261.23(a) (1) and (4)

Deactivation as a method of treatment for nonwastewater forms of:

K044—nonwastewaters

K045—nonwastewaters

K047—nonwastewaters

Deactivation to: SAE 1020 steel corrosion rate <6.35 mm/yr; as a method of treatment for all forms of:

D002—Other corrosives based on 261.22(a)(2)

Surface deactivation or removal of radioactive lead portions followed by encapsulation; or direct encapsulation of radioactive lead solids as methods of treatment for all forms of:

D008—Radioactive Lead Solids (Note: These lead solids include, but are not limited to, all forms of lead shielding, lead "pigs", and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and then stabilized as ash.)

Amalgamation with zinc as a method of treatment for all forms of:

D009—Elemental mercury contaminated with radioactive materials

U151—Elemental mercury contaminated with radioactive materials

Thermal recovery as a method of treatment for nonwastewater forms of:

D008—High lead subcategory—greater than or equal to 2.5% total lead

D008—Lead acid batteries (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80).)

D006—Cadmium batteries



Thermal recovery or stabilization as methods of treatment for nonwastewater forms of:

- P119—Ammonium vanadate  
P120—Vanadium pentoxide

Resmelting in high temperature zinc metal recovery furnace as a method of treatment for nonwastewater forms of:

- K061—High zinc subcategory (greater than 15% total zinc)

Roasting or retorting as a method of treatment; or incineration followed by roasting or retorting of incinerator nonwastewater residues (ash and wastewater treatment sludges from treatment of the incinerator scrubber waters) provided such residues exceed 16 mg/kg total mercury for nonwastewater forms of:

- D009—High mercury subcategory—greater than or equal to 16 mg/kg total mercury

Roasting or retorting as a method of treatment for nonwastewater forms of:

- K106—High mercury subcategory—greater than or equal to 16 mg/kg total mercury  
U151—High mercury subcategory—greater than or equal to 16 mg/kg total mercury  
K071—High mercury subcategory—greater than or equal to 16 mg/kg total mercury (Note: This standard creates a new subcategory identified as K071 High Mercury Subcategory and would replace the K071 nonwastewater treatment standard promulgated August 17, 1988 (53 FR 31167) for wastes that would now fall into this new subcategory.)

Recycling as a method of treatment for nonwastewater forms of:

- K069—Non-Calcium Sulfate Subcategory

Recovery as a method of treatment for all forms of:

- P015—Beryllium dust  
P073—Nickel carbonyl  
P076—Nitric oxide  
P078—Nitrogen dioxide  
P087—Osmium tetroxide  
U115—Ethylene oxide

Recovery or stabilization as methods of treatment for nonwastewater forms of:

- P113—Thallic oxide  
P114—Thallium (I) selenite  
P115—Thallium (I) sulfate  
U214—Thallium (I) acetate  
U215—Thallium (I) carbonate  
U216—Thallium (I) chloride  
U217—Thallium (I) nitrate

(Wet air oxidation or chemical oxidation) followed by carbon adsorption; or incineration as methods of treatment for wastewater forms of:

- P016—Bis-chloromethyl ether  
P023—Chloroacetaldehyde  
P026—1-(o-Chlorophenyl) thiourea  
P027—3-Chloropropionitrile  
P028—Benzyl chloride

- P057—2-Fluoroacetamide  
P058—Fluoroacetic acid, sodium salt  
P095—Phosgene  
P118—Trichloromethanethiol  
U006—Acetyl Chloride  
U017—Benzal chloride  
U020—Benzenesulfonyl chloride  
U026—Chloronaphazine  
U033—Carbonyl fluoride  
U034—Trichloroacetaldehyde  
U041—n-Chloro-2,3-epoxypropane  
U042—2-Chloroethyl vinyl ether  
U046—Chloromethyl methyl ether  
U049—4-Chloro-o-toluidine hydrochloride  
U062—Diallate  
U097—Dimethylcarbomyl chloride  
U156—Methyl chlorocarbonate  
U222—o-Toluidine hydrochloride  
U240—salts and esters of 2,4-D

(Wet air oxidation or chemical oxidation) followed by carbon adsorption; biodegradation followed by carbon adsorption; or incineration; as methods of treatment for wastewater forms of:

- P001—Warfarin (>3%)  
P002—1-Acetyl 2-thiourea  
P005—Allyl alcohol  
P007—Muscimol (5-Aminoethyl 3-isoxazolol)  
P008—4-Aminopyridine  
P014—Benzene thiol (Thiophenol)  
P017—Bromoacetone  
P018—Brucine  
P022—Carbon disulfide  
P034—2-cyclohexyl-4,6-dinitrophenol  
P042—Epinephrine  
P045—Thiofanox  
P046—alpha, alpha-Dimethylphenethylamine  
P047—4,6-dinitrocresol salts  
P049—2,4-Dithiobiuret  
P054—Aziridine  
P064—Isocyanic acid, ethyl ester  
P066—Methomyl  
P067—2-Methylaziridine  
P069—Methylacetonitrile  
P070—Aldicarb  
P072—1-Naphthyl-2-thiourea (Bantu)  
P075—Nicotine and salts  
P084—N-Nitrosomethylvinylamine  
P088—Endothall  
P093—N-Phenylthiourea  
P102—Propargyl alcohol  
P108—Strychnine and salts  
P116—Thiosemicarbazide  
U001—Acetaldehyde  
U008—Acrylic acid  
U007—Acrylamide  
U010—Mitomycin C  
U011—Amitrole  
U014—Auramine  
U015—Azaserine  
U016—Benz(c)acridine  
U021—Benzidine  
U035—Chlorambucil  
U053—Crotonaldehyde  
U055—Cumene (isopropyl benzene)  
U056—Cyclohexane  
U059—Daunomycin  
U064—1,2,7,8-Dibenzopyrene  
U085—1,2,3,4-Diepoxybutane  
U089—Diethyl stilbestrol  
U090—Dihydrosafrole  
U091—3,3-Dimethoxybenzidine  
U092—Dimethylamine  
U094—7,12-Dimethyl benz(a)anthracene

- U095—3,3'-Dimethylbenzidine  
U110—Dipropylamine  
U113—Ethyl acrylate  
U114—Ethylene bis-dithiocarbamic acid  
U115—Ethylene oxide  
U116—Ethylene thiourea  
U119—Ethyl methane sulfonate  
U122—Formaldehyde  
U123—Formic acid  
U124—Furan  
U125—Furfural  
U126—Glycidaldehyde  
U143—Lasiocarpine  
U147—Maleic anhydride  
U148—Maleic Hydrazide  
U149—Malononitrile  
U150—Melphalan  
U153—Methane thiol  
U154—Methanol  
U163—N-Methyl N-nitro N-nitroguanidine  
U164—Methylthiouracil  
U171—2 Nitropropane  
U173—N-Nitroso-di-n-ethanolamine  
U176—N-Nitroso-N-ethylurea  
U177—N-Nitroso-N-methylurea  
U178—N-Nitroso-N-methylurethane  
U182—Paraldehyde  
U186—1,3-Pentadiene  
U191—2-Picoline  
U193—1,3-Propane sultone  
U194—n-Propylamine  
U200—Reserpine  
U202—Saccharin and salts  
U206—Streptozotocin  
U213—Tetrahydrofuran  
U218—Thioacetamide  
U219—Thiourea  
U234—sym-Trinitrobenzene  
U236—Trypan Blue  
U237—Uracil mustard  
U238—Ethyl carbamate  
U244—Thiram  
U248—Warfarin (<3%)

(Alkaline chlorination, chemical oxidation, or incineration) followed by precipitation to insoluble sulfates as methods of treatment for all forms of:

- D003—Reactive sulfides subcategory based on 201.23(a)(5)

Alkaline chlorination or incineration as methods of treatment for all forms of:

- P031—Cyanogen  
P033—Cyanogen chloride  
U246—Cyanogen bromide

Acid or water leaching followed by chemical precipitation as sulfate or carbonate or stabilization for nonwastewater forms of:

- D005—EP toxic for barium  
P013—Barium cyanide

Chemical oxidation followed by precipitation to insoluble salts as a method of treatment for wastewater forms of:

- P006—Aluminum phosphide  
P096—Phosphine  
P105—Sodium azide  
P122—Zinc phosphide (<10%)  
U135—Hydrogen sulfide  
U189—Phosphorus sulfide  
U249—Zinc phosphide (<10%)



Neutralization with acids to:  $6 < \text{pH} < 9$  and insoluble salts; or recovery for all forms of:

D002—Alkaline subcategory based on 261.22(a)(1)

Neutralization with bases to:  $6 < \text{pH} < 9$  and insoluble salts; or recovery for all forms of:

D002—Acid Subcategory based on 261.22(a)(1)

Solubilization in water followed by precipitation as calcium fluoride; or recovery as methods of treatment for nonwastewater forms of:

P056—Flourine

U134—Hydrogen fluoride.

7. In § 268.43, paragraph (a) Table CCW is amended by adding the following subtables in alphabetical/numerical order by EPA Hazardous Waste number, and paragraph (b) is amended by removing waste codes: K044, K045, K047, K060, K069, and K100 from the Subtable for No Land Disposal.

#### § 268.42 Treatment standards expressed as waste concentrations.

(a) \*\*\*

TABLE CCW.—CONSTITUENT  
CONCENTRATION IN WASTES

[\*\*\*\*\*]

	Concentration (in mg/kg)
D003 nonwastewaters (Reactive Cyanides Subcategory): As analyzed using SW-846 Method 9010; sample size: 0.5–10; distillation time: one hour to one hour fifteen minutes	
Cyanides (Total).....	110
Cyanides (Amenable).....	9.1
	Concentration (in mg/l)
D003 wastewaters (Reactive Cyanides Subcategory): As analyzed using SW-846 Method 9010; sample size: 0.5–10; distillation time: one hour to one hour fifteen minutes	
Cyanides (Total).....	1.9
Cyanides (Amenable).....	0.10
D004 wastewaters: Arsenic.....	0.79
	Concentration (in mg/l) 24 hour composite
D005 wastewaters: Barium.....	1.15
	Concentration (in mg/l)
D006 wastewaters: Cadmium.....	0.20

TABLE CCW.—CONSTITUENT  
CONCENTRATION IN WASTES—Continued

[\*\*\*\*\*]

	Concentration (in mg/kg)
D007 wastewaters: Chromium (Total).....	0.32
D008 wastewaters: Lead.....	0.040
D009 wastewaters: Mercury.....	0.030
D010 wastewaters: Selenium.....	0.79
D011 wastewaters: Silver.....	0.29
	Concentration (in mg/kg)
D012 nonwastewaters: Endrin.....	0.13
	Concentration (in mg/l)
D012 wastewaters: Endrin.....	0.00052
	Concentration (in mg/kg)
D013 nonwastewaters: Lindane.....	0.066
	Concentration (in mg/l)
D013 wastewaters: Lindane.....	0.00024
	Concentration (in mg/kg)
D014 nonwastewaters: Methoxychlor.....	0.18
	Concentration (in mg/l)
D014 wastewaters: Methoxychlor.....	0.00036
	Concentration (in mg/kg)
D015 nonwastewaters: Toxaphene.....	1.3
	Concentration (in mg/l)
D015 wastewaters: Toxaphene.....	0.014
	Concentration (in mg/kg)
D016 nonwastewaters: 2,4-D.....	10
	Concentration (in mg/l)
D016 wastewaters: 2,4-D.....	0.013

TABLE CCW.—CONSTITUENT  
CONCENTRATION IN WASTES—Continued

[\*\*\*\*\*]

	Concentration (in mg/kg)
D017 nonwastewaters: 2,4,5-TP.....	2.8
	Concentration (in mg/l)
D017 wastewaters: 2,4,5-TP.....	2.5
	Concentration (in mg/kg)
F002 nonwastewaters: 1,1,2-Trichloroethane.....	6.2
	Concentration (in mg/l)
F002 wastewaters: 1,1,2-Trichloroethane.....	0.054
	Concentration (in mg/kg)
F005 nonwastewaters: Benzene..... 2-Ethoxyethanol..... 2-Nitropropane.....	3.72 47.5 5.6
	Concentration (in mg/l)
F005 wastewaters: Benzene..... 2-Ethoxyethanol..... 2-Nitropropane.....	0.07 73.3 0.073
F006 wastewaters: Cyanides (Total)..... Cyanides (Amenable)..... Cadmium..... Chromium..... Lead..... Nickel.....	1.9 0.10 1.6 0.32 0.040 0.44
F019 wastewaters: Cyanides (Total)..... Cyanides (Amenable)..... Chromium (Total).....	0.27 0.11 0.32
	Concentration (mg/kg)
F019 nonwastewaters: As analyzed using SW-846 Method 9010 using a sample size: 0.5–10 grams distillation time: 1 hr to 1:15 hr	
Cyanides (Total).....	390
Cyanides (Amenable).....	20
F025 nonwastewaters: Light Ends Subcategory	
Chloroform.....	6.2
1,2-Dichloroethane.....	6.2
1,1-Dichloroethylene.....	6.2
Methylene chloride.....	31
Carbon tetrachloride.....	6.2
1,1,2-Trichloroethane.....	6.2
Trichloroethylene.....	5.6
Vinyl chloride.....	0.035



	Concentration (in mg/l)
F025 wastewaters:	
Light Ends Subcategory	
Chloroform .....	0.035
1,2-Dichloroethane .....	0.007
1,1-Dichloroethylene .....	0.007
Methylene chloride .....	0.037
Carbon tetrachloride .....	0.007
1,1,2-Trichloroethane .....	0.007
Trichloroethylene .....	0.007
Vinyl chloride .....	0.033

	Concentration (in mg/kg)
F025 nonwastewaters:	
Spent Filters/Aids and Desiccants Subcategory	
Chloroform .....	6.2
Methylene chloride .....	31
Carbon tetrachloride .....	6.2
1,1,2-Trichloroethane .....	6.2
Trichloroethylene .....	5.6
Vinyl chloride .....	0.035
Hexachlorobenzene .....	37
Hexachlorobutadiene .....	28
Hexachloroethane .....	30

	Concentration (in mg/l)
F025 wastewaters:	
Spent Filters/Aids and Desiccants Subcategory	
Chloroform .....	0.035
Methylene chloride .....	0.037
Carbon tetrachloride .....	0.007
1,1,2-Trichloroethane .....	0.007
Trichloroethylene .....	0.007
Vinyl chloride .....	0.033
Hexachlorobenzene .....	0.055
Hexachlorobutadiene .....	0.031
Hexachloroethane .....	0.034

	Concentration (in mg/kg)
K001 nonwastewaters (see also Table CCWE in 268.41):	
Naphthalene .....	1.5
Pentachlorophenol .....	7.4
Phenanthrene .....	1.5
Pyrene .....	1.5
Toluene .....	28
Xylenes (Total) .....	33

	Concentration (in mg/l)
K001 wastewaters:	
Naphthalene .....	0.031
Pentachlorophenol .....	0.18
Phenanthrene .....	0.031
Pyrene .....	0.028
Toluene .....	0.028
Xylene (Total) .....	0.032
Lead .....	0.037

	Concentration (in mg/l)	
	30 day maximum	24 hour maximum
K002 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4
K003 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4

	Concentration (in mg/l)	
	30 day maximum	24 hour maximum
K004 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4
K005 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4
Cyanides (Total) .....	0.31	0.74
K006 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4
K007 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4
Cyanides (Total) .....	0.31	0.74
K008 wastewaters:		
Chromium (Total) .....	1.2	0.9
Lead .....	1.4	3.4

	Concentration (in mg/l)
K011 wastewaters:	
Acetonitrile .....	38
Acrylamide .....	19
Acrylonitrile .....	0.06
Benzene .....	0.02
Cyanides (Total) .....	21
K013 wastewaters:	
Acetonitrile .....	38
Acrylamide .....	19
Acrylonitrile .....	0.06
Benzene .....	0.02
Cyanides (Total) .....	21
K014 wastewaters:	
Acetonitrile .....	38
Acrylamide .....	19
Acrylonitrile .....	0.06
Benzene .....	0.02
Cyanides (Total) .....	21

	Concentration (in mg/kg)
K015 nonwastewaters (see also Table CCWE in 268.41):	
Anthracene .....	3.4
Benzal chloride .....	6.2
Benzo(b/k)fluoranthene .....	3.4
Phenanthrene .....	3.4
Toluene .....	6.0
K017 nonwastewaters:	
1,2-Dichloropropane .....	0.014
1,2,3-Trichloropropane .....	0.014
Bis(2-chloroethyl)ether .....	1.8

	Concentration (in mg/l)
K017 wastewaters:	
1,2-Dichloropropane .....	0.014
1,2,3-Trichloropropane .....	0.014
Bis(2-chloroethyl)ether .....	0.037

	Concentration (in mg/kg)
K021 nonwastewaters (see also Table CCWE in 268.41):	
Chloroform .....	6.2
Carbon tetrachloride .....	6.2

	Concentration (in mg/l)
K021 wastewaters:	
Chloroform .....	0.008
Carbon tetrachloride .....	0.008
Antimony .....	0.60

	Concentration (in mg/l)
K022 wastewaters:	
Toluene .....	0.017
Acetophenone .....	0.036
Diphenylamine/ diphenylnitrosamine .....	0.036
Phenol .....	0.091
Chromium (Total) .....	0.35
Nickel .....	0.47

	Concentration (in mg/l)
K025 wastewaters:	
2,4-Dinitrotoluene .....	0.67
Nitrobenzene .....	0.084
4-Nitrophenol .....	0.67

	Concentration (in mg/kg)
K025 nonwastewaters:	
2,4-Dinitrotoluene .....	2.3
Nitrobenzene .....	2.3
4-Nitrophenol .....	2.3

	Concentration (in mg/l)
K026 nonwastewaters:	
Pyridine .....	14

	Concentration (in mg/l)
K026 wastewaters:	
Pyridine .....	0.017
K029 wastewaters:	
Chloroform .....	0.007
1,2-Dichloroethane .....	0.007
1,1-Dichloroethylene .....	0.033
1,1,1-Trichloroethane .....	0.007
Vinyl chloride .....	0.033

	Concentration (in mg/l)
K031 wastewaters:	
Arsenic .....	0.79



	Concentration (in mg/kg)
K032 nonwastewaters:	
Hexachlorocyclopentadiene .....	2.0
Chlordane .....	0.13
Heptachlor .....	0.066
Heptachlor epoxide .....	0.066
	Concentration (in mg/l)
K032 wastewaters:	
Hexachlorocyclopentadiene .....	0.047
Chlordane .....	0.00039
Heptachlor .....	0.00022
Heptachlor epoxide .....	0.00022
	Concentration (in mg/kg)
K033 nonwastewaters:	
Hexachlorocyclopentadiene .....	2.0
	Concentration (in mg/l)
K033 wastewaters:	
Hexachlorocyclopentadiene .....	0.047
	Concentration (in mg/kg)
K034 nonwastewaters:	
Hexachlorocyclopentadiene .....	2.0
	Concentration (in mg/l)
K034 wastewaters:	
Hexachlorocyclopentadiene .....	0.047
K035 wastewaters:	
Benz(a)anthracene .....	0.028
Chrysene .....	0.14
o-Cresol .....	0.028
p-Cresol .....	0.028
Fluoranthene .....	0.028
Naphthalene .....	0.028
Phenanthrene .....	0.028
Phenol .....	0.031
Pyrene .....	0.056
	Concentration (in mg/kg)
K035 nonwastewaters:	
Acenaphthene .....	3.4
Anthracene .....	3.4
Benz(a)anthracene .....	3.4
Chrysene .....	3.4
K035 nonwastewaters:	
Dibenz(a,h)anthracene .....	3.4
Fluoranthene .....	3.4
Fluorene .....	3.4
Indeno(1,2,3-cd)pyrene .....	3.4
Naphthalene .....	3.4
Phenanthrene .....	3.4
Pyrene .....	8.2
K036 nonwastewaters:	
Disulfoton .....	0.1

	Concentration (in mg/l)
K037 wastewaters (based on composite sample):	
Disulfoton .....	0.025
Toluene .....	0.080
	Concentration (in mg/kg)
K041 nonwastewaters:	
Toxaphene .....	0.13
	Concentration (in mg/l)
Toxaphene .....	0.00039
	Concentration (in mg/kg)
K042 nonwastewaters:	
1,2,4,5-Tetrachlorobenzene .....	4.4
o-Dichlorobenzene .....	4.4
p-Dichlorobenzene .....	4.4
Pentachlorobenzene .....	4.4
1,2,4-Trichlorobenzene .....	4.4
	Concentration (in mg/l)
K042 wastewaters:	
1,2,4,5-Tetrachlorobenzene .....	0.092
o-Dichlorobenzene .....	0.092
p-Dichlorobenzene .....	0.092
Pentachlorobenzene .....	0.092
1,2,4-Trichlorobenzene .....	0.092
K044 wastewaters:	
Lead .....	0.037
K045 wastewaters:	
Lead .....	0.037
K046 wastewaters:	
Lead .....	0.037
K047 wastewaters:	
Lead .....	0.037
K048 wastewaters:	
Cyanides (Total) .....	0.028
	Concentration (in mg/kg)
K048 nonwastewaters:	
Benzene .....	3.9
Benzo(a)pyrene .....	1.4
Bis(2-ethylhexyl)phthalate .....	4.3
Chrysene .....	0.84
Di-n-butyl phthalate .....	4.3
Ethylbenzene .....	0.08
Naphthalene .....	0.84
Phenanthrene .....	0.84
Phenol .....	4.3
Pyrene .....	1.1
Toluene .....	3.9
Xylene(s) .....	8.5
	Concentration (in mg/l)
K049 wastewaters:	
Cyanides (Total) .....	0.028

	Concentration (in mg/kg)
K049 nonwastewaters:	
Anthracene .....	1.4
Benzene .....	3.9
Benzo(a)pyrene .....	1.4
Bis(2-ethylhexyl)phthalate .....	4.3
Chrysene .....	0.84
Ethylbenzene .....	0.08
Naphthalene .....	0.84
Phenanthrene .....	0.84
Phenol .....	4.3
Pyrene .....	1.1
Toluene .....	3.9
Xylene(s) .....	8.5
	Concentration (in mg/l)
K050 wastewaters:	
Cyanides (Total) .....	0.028
	Concentration (in mg/kg)
K050 nonwastewaters:	
Benzo(a)pyrene .....	1.4
Phenol .....	4.3
	Concentration (in mg/l)
K051 wastewaters:	
Cyanides (Total) .....	0.028
	Concentration (in mg/kg)
K051 nonwastewaters:	
Anthracene .....	1.4
Benzene .....	3.9
Benzo(a)anthracene .....	1.4
Benzo(a)pyrene .....	1.4
Bis(2-ethylhexyl)phthalate .....	4.3
Chrysene .....	0.84
Di-n-butyl phthalate .....	4.3
Ethylbenzene .....	0.08
Naphthalene .....	0.84
Phenanthrene .....	0.84
Phenol .....	4.3
Pyrene .....	1.1
Toluene .....	3.9
Xylene(s) .....	8.5
	Concentration (in mg/l)
K052 wastewaters:	
Cyanides (Total) .....	0.028
	Concentration (in mg/kg)
K052 nonwastewaters:	
Benzene .....	3.9
Benzo(a)pyrene .....	1.4
o-Cresol .....	6.8
p-Cresol .....	6.8
Ethylbenzene .....	0.08
Naphthalene .....	0.84
Phenanthrene .....	0.84
Phenol .....	4.3
Toluene .....	3.9
Xylene(s) .....	8.5



Concentration (in mg/l)		Concentration (in mg/l)		Concentration (in mg/l)	
K060 wastewaters (based on composite samples):		K083 wastewaters:		Methylene chloride	
Benzene	0.17	Benzene	0.008	Naphthalene	5.9
Benzo(a)pyrene	0.035	Aniline	0.017	Nitrobenzene	14
Naphthalene	0.028	Diphenylamine/		Toluene	28
Phenol	0.042	diphenylnitrosamine	0.017	1,1,1-Trichloroethane	6.2
		Nitrobenzene	0.017	Trichloroethylene	5.6
		Phenol	0.007	Xylenes (Total)	33
		Cyclohexanone	0.036	Cyanides (Total)	1.5
		Nickel	0.47		
Concentration (in mg/l)		Concentration (in mg/kg)		Concentration (in mg/l)	
K060 wastewaters (based on grab samples):		K084 wastewaters:		K086 wastewaters:	
Cyanides (Total)	1.9	Arsenic	0.79	Acetone	0.25
				Acetophenone	0.17
Concentration (in mg/kg)		Concentration (in mg/l)		Bis(2-ethylhexyl)phthalate	0.54
K060 nonwastewaters:		K085 nonwastewaters:		n-Butyl alcohol	0.56
Benzene	0.071	Benzene	4.4	Butylbenzylphthalate	0.54
Benzo(a)pyrene	3.6	Chlorobenzene	4.4	Cyclohexanone	1.4
Naphthalene	3.4	o-Dichlorobenzene	4.4	1,2-Dichlorobenzene	0.058
Phenol	3.4	m-Dichlorobenzene	4.4	Diethyl phthalate	0.54
Cyanides (Total)	1.2	p-Dichlorobenzene	4.4	Dimethyl phthalate	0.54
		1,2,4-Trichlorobenzene	4.4	Di-n-butyl phthalate	0.54
		1,2,4,5-Tetrachlorobenzene	4.4	Di-n-octyl phthalate	0.54
		Pentachlorobenzene	4.4	Ethyl acetate	0.0052
Concentration (in mg/l)				Ethylbenzene	0.032
K061 wastewaters:				Methanol (based on composite sample)	0.033
Cadmium	1.61	Aroclor 1016	0.13	Methyl isobutyl ketone	0.028
Chromium (Total)	0.32	Aroclor 1221	0.13	Methyl ethyl ketone	0.14
Lead	0.04	Aroclor 1232	0.13	Methylene chloride	0.037
Nickel	0.44	Aroclor 1242	0.13	Naphthalene	0.007
		Aroclor 1248	0.13	Nitrobenzene	0.033
		Aroclor 1254	0.13	Toluene	0.032
		Aroclor 1260	0.13	1,1,1-Trichloroethane	0.007
				Trichloroethylene	0.007
Concentration (in mg/l)				Xylenes (Total)	0.028
K069 wastewaters:				Cyanides (Total)	1.9
Cadmium	1.61	Concentration (in mg/l)		Chromium (Total)	0.32
Lead	0.040	K085 wastewaters:		Lead	0.037
		Concentration (in mg/kg)			
K073 nonwastewaters:		K086 nonwastewaters (see also Table CCWE in 268.41):		K095 wastewaters:	
Carbon tetrachloride	6.2	Acetone	0.14	1,1,1,2-Tetrachloroethane	0.007
Chloroform	6.2	Acetophenone	9.6	1,1,2,2-Tetrachloroethane	0.007
Hexachloroethane	28	Bis(2-ethylhexyl)phthalate	28	Tetrachloroethene	0.007
Tetrachloroethane	6.2	n-Butyl alcohol	2.6	1,1,2-Trichloroethane	0.007
1,1,1-Trichloroethane	6.2	Butylbenzylphthalate	28	Trichloroethene	0.007
		Cyclohexanone	1.9	Hexachloroethane	0.033
		1,2-Dichlorobenzene	6.2	Pentachloroethane	0.007
		Diethyl phthalate	28		
		Dimethyl phthalate	28	Concentration (in mg/l)	
		Di-n-butyl phthalate	28	K096 wastewaters:	
		Di-n-octyl phthalate	28	1,1,1,2-Tetrachloroethane	0.007
		Ethyl acetate	5.6	1,1,2,2-Tetrachloroethane	0.007
		Ethylbenzene	33	Tetrachloroethene	0.007
		Methanol	140	1,1,2-Trichloroethane	0.007
		Methyl isobutyl ketone	33	Trichloroethene	0.007
		Methyl ethyl ketone	200	1,3-Dichlorobenzene	0.008
				Pentachloroethane	0.007
				1,2,4-Trichlorobenzene	0.023
Concentration (in mg/kg)					
K083 nonwastewaters (see also Table CCWE in 268.41):				Concentration (in mg/kg)	
Benzene	6.6			K097 nonwastewaters:	
Aniline	14			Hexachlorocyclopentadiene	2.0
Diphenylamine/				Chlordane	0.13
diphenylnitrosamine	14			Heptachlor	0.066
Nitrobenzene	14			Heptachlor epoxide	0.66
Phenol	5.6				
Cyclohexanone	30			Concentration (in mg/l)	
				K097 wastewaters:	
				Hexachlorocyclopentadiene	0.047
				Chlordane	0.00039
				Heptachlor	0.00022



	Concentration (in mg/kg)
Heptachlor epoxide .....	0.00022
	Concentration (in mg/kg)
K098 nonwastewaters: Toxaphene .....	0.13
	Concentration (in mg/l)
K098 wastewaters: Toxaphene .....	0.00039
K100 wastewaters: Cadmium .....	1.61
Chromium (Total) .....	0.32
Lead .....	0.040
K101 wastewaters: Ortho-nitroaniline .....	0.27
Arsenic .....	0.79
Cadmium .....	0.24
Lead .....	0.17
Mercury .....	0.082
K102 wastewaters: Ortho-nitrophenol .....	0.028
Arsenic .....	0.79
Cadmium .....	0.24
Lead .....	0.17
Mercury .....	0.082
	Concentration (in mg/kg)
K105 nonwastewaters: Benzene .....	4.4
Chlorobenzene .....	4.4
o-Dichlorobenzene .....	4.4
p-Dichlorobenzene .....	4.4
2,4,5-Trichlorophenol .....	4.4
2,4,6-Trichlorophenol .....	4.4
2-Chlorophenol .....	4.4
Phenol .....	4.4
	Concentration (in mg/l)
K105 wastewaters: Benzene .....	0.092
Chlorobenzene .....	0.092
o-Dichlorobenzene .....	0.092
p-Dichlorobenzene .....	0.092
2,4,5-Trichlorophenol .....	0.092
2,4,6-Trichlorophenol .....	0.092
2-Chlorophenol .....	0.092
Phenol .....	0.092
K106 wastewater Mercury .....	0.030
P003 wastewaters: Acrolein .....	3.6
	Concentration (in mg/kg)
P004 nonwastewaters: Aldrin .....	0.066
	Concentration (in mg/l)
P004 wastewaters: Aldrin .....	0.00024
P010 wastewaters: Arsenic .....	0.79
P011 wastewaters: Arsenic .....	0.79
P012 wastewaters: Arsenic .....	0.79

	Concentration (in mg/l) 24 hour composite
P013 wastewaters: Barium .....	1.15
	Concentration (in mg/kg)
P020 nonwastewaters: 2-sec-Butyl-4,6-dinitrophenol .....	2.5
	Concentration (in mg/l)
P020 wastewaters: 2-sec-Butyl-4,6-dinitrophenol .....	0.036
	Concentration (in mg/kg)
P024 nonwastewaters: p-Chloroaniline .....	16
	Concentration (in mg/l)
P024 wastewaters: p-Chloroaniline .....	0.28
P036 wastewaters: Arsenic .....	0.79
	Concentration (in mg/kg)
P037 nonwastewaters: Dieldrin .....	0.13
	Concentration (in mg/l)
P037 wastewaters: Dieldrin .....	0.00052
P038 wastewaters: Arsenic .....	0.79
	Concentration (in mg/kg)
P047 nonwastewaters: (see also 268.42 for salts and esters) 4,6-dinitroresol .....	140
	Concentration (in mg/l)
P047 wastewaters: (see also 268.42 for salts and esters): 4,6-dinitroresol .....	0.18
	Concentration (in mg/kg)
P048 nonwastewaters: 2,4-dinitrophenol .....	140
	Concentration (in mg/l)
P048 wastewaters: 2,4-dinitrophenol .....	0.18

	Concentration (in mg/kg)
P050 nonwastewaters: Endosulfan I .....	0.066
Endosulfan II .....	0.13
Endosulfan sulfate .....	0.13
	Concentration (in mg/l)
P050 wastewaters: Endosulfan I .....	0.00024
Endosulfan II .....	0.00052
Endosulfan sulfate .....	0.00052
	Concentration (in mg/kg)
P051 nonwastewaters: Endrin .....	0.13
Endrin aldehyde .....	0.13
	Concentration (in mg/l)
P051 wastewaters: Endrin .....	0.00052
Endrin aldehyde .....	0.00052
P056 wastewaters: Flouride .....	35
	Concentration (in mg/kg)
P059 nonwastewaters: Heptachlor .....	0.066
Heptachlor epoxide .....	0.066
	Concentration (in mg/l)
P059 wastewaters: Heptachlor .....	0.00022
Heptachlor epoxide .....	0.00024
	Concentration (in mg/kg)
P060 nonwastewaters: Isodrin .....	0.010
	Concentration (in mg/l)
P060 wastewaters: Isodrin .....	0.00020
P065 wastewaters: Mercury .....	0.030
	Concentration (in mg/kg)
P077 nonwastewaters: p-Nitroaniline .....	28
	Concentration (in mg/l)
P077 wastewaters: p-Nitroaniline .....	0.25



P082 nonwastewaters: N-Nitrosodimethylamine .....	Concentration (in mg/kg) 56	U003 nonwastewaters: Acetonitrile .....	Concentration (in mg/kg) 0.35	U018 nonwastewaters: Benz(a)anthracene .....	Concentration (in mg/kg) 3.6
P082 wastewaters: N-Nitrosodimethylamine .....	Concentration (in mg/l) 0.67	U003 wastewaters: Acetonitrile .....	Concentration (in mg/l) 0.42	U018 wastewaters: Benz(a)anthracene .....	Concentration (in mg/l) 0.030
P092 wastewaters: Mercury .....	0.030	U004 nonwastewaters: Acetophenone .....	Concentration (in mg/kg) 9.6	U019 nonwastewaters: Benzene .....	Concentration (in mg/l) 36
P099 wastewaters: Silver .....	0.29	U004 wastewaters: Acetophenone .....	Concentration (in mg/l) 0.17	U019 wastewaters: Benzene .....	Concentration (in mg/kg) 0.033
P101 nonwastewaters: Propanenitrile .....	Concentration (in mg/kg) 360	U005 nonwastewaters: 2-Acetylaminofluorene .....	Concentration (in mg/kg) 13	U022 nonwastewaters: Benzo(a)pyrene .....	Concentration (in mg/l) 3.6
P101 wastewaters: Propanenitrile .....	Concentration (in mg/l) 0.64	U005 wastewaters: 2-Acetylaminofluorene .....	Concentration (in mg/kg) 0.058	U022 wastewaters: Benzo(a)pyrene .....	Concentration (in mg/l) 0.030
P103 wastewaters: Selenium .....	0.79	U009 nonwastewaters: Acrylonitrile .....	Concentration (in mg/l) 0.28	U024 nonwastewaters: Bis-(2-chloroethoxy)methane .....	Concentration (in mg/l) 1.2
P104 wastewaters: Silver .....	0.29	U009 wastewaters: Acrylonitrile .....	Concentration (in mg/kg) 0.64	U024 wastewaters: Bis-(2-chloroethoxy)methane .....	Concentration (in mg/kg) 0.064
P110 wastewaters: Lead .....	0.040	U012 nonwastewaters: Aniline .....	Concentration (in mg/kg) 14	U025 nonwastewaters: Dichloroethyl ether .....	Concentration (in mg/l) 7.2
P113 wastewaters: Thallium .....	0.14	U012 wastewaters: Aniline .....	Concentration (in mg/kg) 0.033	U025 wastewaters: Dichloroethyl ether .....	Concentration (in mg/kg) 0.013
P114 wastewaters: Selenium .....	0.79	U017 nonwastewaters: Benzal chloride .....	Concentration (in mg/l) 6.2	U027 nonwastewaters: Bis-(2-chloroisopropyl) ether .....	Concentration (in mg/l) 7.2
P114 wastewaters: Thallium .....	0.14	U017 wastewaters: Benzal chloride .....	Concentration (in mg/kg) 0.28	U027 wastewaters: Bis-(2-chloroisopropyl) ether .....	Concentration (in mg/kg) 0.064
P115 wastewaters: Thallium .....	0.14			U029 nonwastewaters: Methyl Bromide .....	Concentration (in mg/l) 15
P119 wastewaters: Vanadium .....	0.042			U029 wastewaters: Methyl Bromide .....	Concentration (in mg/kg) 16
P120 wastewaters: Vanadium .....	0.042			U030 nonwastewaters: 4-Bromophenol Phenyl Ether .....	15
P123 nonwastewaters: Toxaphene .....	Concentration (in mg/kg) 1.3				
P123 wastewaters: Toxaphene .....	Concentration (in mg/l) 0.014				
U002 nonwastewaters: Acetone .....	Concentration (in mg/kg) 0.14				
U002 wastewaters: Acetone .....	Concentration (in mg/l) 0.25				



	Concentration (in mg/l)
U030 wastewaters: 4-Bromophenol Phenyl Ether .....	16
	Concentration (in mg/kg)
U031 nonwastewaters: n-Butanol .....	2.6
	Concentration (in mg/l)
U031 wastewaters: n-Butanol .....	0.56
	Concentration (in mg/l)
U032 wastewaters: Chromium (Total) .....	0.32
	Concentration (in mg/kg)
U036 nonwastewaters: Chlordane .....	0.13
	Concentration (in mg/l)
U036 wastewaters: Chlordane .....	0.00044
	Concentration (in mg/kg)
U037 nonwastewaters: Chlorobenzene .....	5.7
	Concentration (in mg/l)
U037 wastewaters: Chlorobenzene .....	0.014
	Concentration (in mg/kg)
U038 nonwastewaters: Chlorobenzilate .....	6.6
	Concentration (in mg/l)
U038 wastewaters: Chlorobenzilate .....	0.292
	Concentration (in mg/kg)
U039 nonwastewaters: p-Chloro-m-cresol .....	14
	Concentration (in mg/l)
U039 wastewaters: p-Chloro-m-cresol .....	0.062
	Concentration (in mg/kg)
U043 nonwastewaters: Vinyl chloride .....	0.035

	Concentration (in mg/l)
U043 wastewaters: Vinyl chloride .....	0.033
	Concentration (in mg/kg)
U044 nonwastewaters: Chloroform .....	6.2
	Concentration (in mg/kg)
U044 wastewaters: Chloroform .....	0.007
	Concentration (in mg/kg)
U045 nonwastewaters: Chloromethane .....	5.6
	Concentration (in mg/l)
U045 wastewaters: Chloromethane .....	0.023
	Concentration (in mg/kg)
U047 nonwastewaters: 2-Chloronaphthalene .....	5.6
	Concentration (in mg/l)
U047 wastewaters: 2-Chloronaphthalene .....	0.073
	Concentration (in mg/kg)
U048 nonwastewaters: 2-Chlorophenol .....	5.7
	Concentration (in mg/l)
U048 wastewaters: 2-Chlorophenol .....	0.056
	Concentration (in mg/kg)
U050 nonwastewaters: Chrysene .....	3.6
	Concentration (in mg/l)
U050 wastewaters: Chrysene .....	0.15
	Concentration (in mg/kg)
U051 nonwastewaters (see also Table CCWE in 268.41): Naphthalene .....	1.5
Pentachlorophenol .....	7.4
Phenanthrene .....	1.5

	Concentration (in mg/l)
Pyrene .....	1.5
Toluene .....	28
Xylenes (Total) .....	33
	Concentration (in mg/kg)
U051 wastewaters: Naphthalene .....	0.031
Pentachlorophenol .....	0.18
Phenanthrene .....	0.031
Pyrene .....	0.028
Toluene .....	0.028
Xylene (Total) .....	0.032
Lead .....	0.037
	Concentration (in mg/kg)
U052 nonwastewaters: o-Cresol .....	5.6
Cresols (m- and p- isomers) .....	3.2
	Concentration (in mg/l)
U052 wastewaters: o-Cresol .....	0.0066
Cresols (m- and p- isomers) .....	0.028
	Concentration (in mg/kg)
U057 nonwastewaters: Cyclohexanone .....	1.9
	Concentration (in mg/l)
U057 wastewaters: Cyclohexanone .....	1.4
	Concentration (in mg/kg)
U060 nonwastewaters: o,p'-DDD .....	0.087
p,p'-DDD .....	0.087
	Concentration (in mg/l)
U060 wastewaters: o,p'-DDD .....	0.00036
p,p'-DDD .....	0.00036
	Concentration (in mg/kg)
U061 nonwastewaters: o,p'-DDT .....	0.087
p,p'-DDT .....	0.087
o,p'-DDD .....	0.087
p,p'-DDD .....	0.087
o,p'-DDE .....	0.087
p,p'-DDE .....	0.087
	Concentration (in mg/l)
U061 wastewaters: o,p'-DDT .....	0.00036
p,p'-DDT .....	0.00036
o,p'-DDD .....	0.00036
p,p'-DDD .....	0.00036
o,p'-DDE .....	0.00036



	Concentration (in mg/kg)
p,p'-DDE.....	0.00036
	Concentration (in mg/kg)
U063 nonwastewaters: Dibenzo(a,h)anthracene .....	13
	Concentration (in mg/l)
U063 wastewaters: Dibenzo(a,h)anthracene .....	0.012
	Concentration (in mg/kg)
U066 nonwastewaters: 1,2-Dibromo-3-Chloropropane .....	15
	Concentration (in mg/l)
U066 wastewaters: 1,2-Dibromo-3-Chloropropane .....	16
	Concentration (in mg/kg)
U067 nonwastewaters: Ethylene Dibromide .....	15
	Concentration (in mg/l)
U067 wastewaters: Ethylene Dibromide .....	16
	Concentration (in mg/kg)
U068 nonwastewaters: Dibromomethane.....	15
	Concentration (in mg/l)
U068 wastewaters: Dibromomethane.....	16
	Concentration (in mg/kg)
U070 nonwastewaters: o-Dichlorobenzene.....	6.2
	Concentration (in mg/l)
U070 wastewaters: o-Dichlorobenzene.....	0.058
	Concentration (in mg/kg)
U071 nonwastewaters: m-Dichlorobenzene.....	6.2
	Concentration (in mg/l)
U071 wastewaters: m-Dichlorobenzene.....	0.072

	Concentration (in mg/kg)
U072 nonwastewaters: p-Dichlorobenzene.....	6.2
	Concentration (in mg/l)
U072 wastewaters: p-Dichlorobenzene.....	0.058
	Concentration (in mg/kg)
U073 nonwastewaters: 3,3'-Dichlorobenzidine .....	16
	Concentration (in mg/l)
U073 wastewaters: 3,3'-Dichlorobenzidine .....	0.022
	Concentration (in mg/kg)
U074 nonwastewaters: cis-1,4-Dichloro-2-butene .....	30
trans-1,4-Dichloro-2-butene .....	30
	Concentration (in mg/l)
U074 wastewaters: cis-1,4-Dichloro-2-butene .....	0.034
trans-1,4-Dichloro-2-butene .....	0.034
	Concentration (in mg/kg)
U075 nonwastewater: Dichlorodifluoromethane .....	10
	Concentration (in mg/l)
U075 wastewaters: Dichlorodifluoromethane .....	0.14
	Concentration (in mg/kg)
U076 nonwastewaters: 1,1-Dichloroethane.....	6.2
	Concentration (in mg/l)
U076 wastewaters: 1,1-Dichloroethane .....	0.007
	Concentration (in mg/kg)
U077 nonwastewaters: 1,2-Dichloroethane .....	6.2
	Concentration (in mg/l)
U077 wastewaters: 1,2-Dichloroethane.....	0.007

	Concentration (in mg/kg)
U078 nonwastewaters: 1,1-Dichloroethylene.....	6.2
	Concentration (in mg/l)
U078 wastewaters: 1,1-Dichloroethylene.....	0.007
	Concentration (in mg/kg)
U079 nonwastewaters: trans-1,2-Dichloroethylene.....	6.2
	Concentration (in mg/l)
U079 wastewaters: trans-1,2-Dichloroethylene.....	0.007
	Concentration (in mg/kg)
U080 nonwastewaters: Methylene chloride .....	31
	Concentration (in mg/l)
U080 wastewaters: Methylene chloride .....	0.037
	Concentration (in mg/kg)
U081 nonwastewaters: 2,4-Dichlorophenol.....	14
	Concentration (in mg/l)
U081 wastewaters: 2,4-Dichlorophenol.....	0.052
	Concentration (in mg/kg)
U082 nonwastewaters: 2,6-Dichlorophenol.....	14
	Concentration (in mg/l)
U082 wastewaters: 2,6-Dichlorophenol.....	0.018
	Concentration (in mg/kg)
U083 nonwastewaters: 1,2-Dichloropropane .....	15
	Concentration (in mg/l)
U083 wastewaters: 1,2-Dichloropropane .....	0.067



	Concentration (in mg/kg)
U084 nonwastewaters:	
cis-1,3-Dichloropropene .....	15
trans-1,3-Dichloropropene .....	15
	Concentration (in mg/l)
U084 wastewaters:	
cis-1,3-Dichloropropene .....	0.067
trans-1,3-Dichloropropene .....	0.067
	Concentration (in mg/kg)
U093 nonwastewaters:	
p-Dimethylaminoazobenzene .....	29
	Concentration (in mg/l)
U093 wastewaters:	
p-Dimethylaminoazobenzene .....	0.74
	Concentration (in mg/kg)
U101 nonwastewaters:	
2,4-Dimethyl phenol .....	14
	Concentration (in mg/l)
U101 wastewaters:	
2,4-Dimethyl phenol .....	0.045
	Concentration (in mg/kg)
U105 nonwastewaters:	
2,4-Dinitrotoluene .....	140
	Concentration (in mg/l)
U105 wastewaters:	
2,4-Dinitrotoluene .....	0.17
	Concentration (in mg/kg)
U106 nonwastewaters:	
2,6-Dinitrotoluene .....	28
	Concentration (in mg/l)
U106 wastewaters:	
2,6-Dinitrotoluene .....	0.051
	Concentration (in mg/kg)
U108 nonwastewaters:	
1,4-Dioxane .....	280
	Concentration (in mg/l)
U108 wastewaters:	
1,4-Dioxane .....	0.080

	Concentration (in mg/kg)
U111 nonwastewaters:	
Di-n-propylnitrosoamine .....	14
	Concentration (in mg/l)
U111 wastewaters:	
Di-n-propylnitrosoamine .....	0.065
	Concentration (in mg/kg)
U112 nonwastewaters:	
Ethyl acetate .....	5.6
	Concentration (in mg/l)
U112 wastewaters:	
Ethyl acetate .....	0.0052
	Concentration (in mg/kg)
U117 nonwastewaters:	
Ethyl ether .....	140
	Concentration (in mg/l)
U117 wastewaters:	
Ethyl ether .....	0.28
	Concentration (in mg/kg)
U118 nonwastewaters:	
Ethyl methacrylate .....	160
	Concentration (in mg/l)
U118 wastewaters:	
Ethyl methacrylate .....	0.47
	Concentration (in mg/kg)
U120 nonwastewaters:	
Fluoranthene .....	3.6
	Concentration (in mg/l)
U120 wastewaters:	
Fluoranthene .....	0.030
	Concentration (in mg/kg)
U121 nonwastewaters:	
Fluorotrichloromethane .....	33
	Concentration (in mg/l)
U121 wastewaters:	
Fluorotrichloromethane .....	0.13

	Concentration (in mg/kg)
U127 nonwastewaters:	
Hexachlorobenzene .....	37
	Concentration (in mg/l)
U127 wastewaters:	
Hexachlorobenzene .....	0.055
	Concentration (in mg/kg)
U128 nonwastewaters:	
Hexachlorobutadiene .....	28
	Concentration (in mg/l)
U128 wastewaters:	
Hexachlorobutadiene .....	0.031
	Concentration (in mg/kg)
U129 nonwastewaters:	
alpha-BHC .....	0.066
beta-BHC .....	0.066
delta-BHC .....	0.066
gamma-BHC (Lindane) .....	0.066
	Concentration (in mg/l)
U129 wastewaters:	
alpha-BHC .....	0.00024
beta-BHC .....	0.00024
delta-BHC .....	0.00024
gamma-BHC (Lindane) .....	0.00024
	Concentration (in mg/kg)
U130 nonwastewaters:	
Hexachlorocyclopentadiene .....	4.8
	Concentration (in mg/l)
U130 wastewaters:	
Hexachlorocyclopentadiene .....	0.096
	Concentration (in mg/l)
U131 nonwastewaters:	
Hexachloroethane .....	30
	Concentration (in mg/l)
U131 wastewaters:	
Hexachloroethane .....	0.034
	Concentration (in mg/kg)
U132 nonwastewaters:	
Hexachlorophene .....	1.1



	Concentration (in mg/l)
U132 wastewaters: Hexachlorophene .....	58
U134 wastewaters: Fluoride .....	35
U136 wastewaters: Arsenic .....	0.79
	Concentration (in mg/kg)
U137 nonwastewaters: Indeno(1,2,3,-c,d)pyrene .....	3.6
	Concentration (in mg/l)
U137 wastewaters: Indeno(1,2,3,-c,d)pyrene .....	0.030
	Concentration (in mg/kg)
U138 nonwastewaters: Iodomethane .....	65
	Concentration (in mg/l)
U138 wastewaters: Iodomethane .....	0.23
	Concentration (in mg/kg)
U140 nonwastewaters: Isobutanol .....	170
	Concentration (in mg/l)
U140 wastewaters: Isobutanol .....	1.4
	Concentration (in mg/kg)
U141 nonwastewaters: Isosafrole .....	2.6
	Concentration (in mg/l)
U141 wastewaters: Isosafrole .....	0.076
	Concentration (in mg/kg)
U142 nonwastewaters: Kepone .....	0.043
	Concentration (in mg/l)
U142 wastewaters: Kepone .....	0.0011
U144 wastewaters: Lead .....	0.040

	Concentration (in mg/l)
U145 wastewaters: Lead .....	0.040
U146 wastewaters: Lead .....	0.040
U151 wastewaters: Mercury .....	0.030
	Concentration (in mg/kg)
U152 nonwastewaters: Methacrylonitrile .....	84
	Concentration (in mg/l)
U152 wastewaters: Methacrylonitrile .....	0.47
	Concentration (in mg/kg)
U155 nonwastewaters: Methapyrilene .....	6.9
	Concentration (in mg/l)
U155 wastewaters: Methapyrilene .....	0.15
	Concentration (in mg/kg)
U157 nonwastewaters: 3-Methylchloanthrene .....	33
	Concentration (in mg/l)
U157 wastewaters: 3-Methylchloanthrene .....	0.58
	Concentration (in mg/kg)
U158 nonwastewaters: 4,4'-Methylene-bis-(2-chloroaniline) .....	29
	Concentration (in mg/l)
U158 wastewaters: 4,4'-Methylene-bis-(2-chloroaniline) .....	0.74
	Concentration (in mg/kg)
U159 nonwastewaters: Methyl ethyl ketone .....	200
	Concentration (in mg/l)
U159 wastewaters: Methyl ethyl ketone .....	0.14

	Concentration (in mg/l)
U161 nonwastewaters: Methyl isobutyl ketone .....	33
	Concentration (in mg/l)
U161 wastewaters: Methyl isobutyl ketone .....	0.028
	Concentration (in mg/kg)
U162 nonwastewaters: Methyl methacrylate .....	160
	Concentration (in mg/l)
U162 wastewaters: Methyl methacrylate .....	0.47
	Concentration (in mg/kg)
U165 nonwastewaters: Naphthalene .....	5.9
	Concentration (in mg/l)
U165 wastewaters: Naphthalene .....	0.007
	Concentration (in mg/kg)
U166 nonwastewaters: 1,4-Naphthoquinone .....	1.9
	Concentration (in mg/l)
U166 wastewaters: 1,4-Naphthoquinone .....	0.073
	Concentration (in mg/kg)
U167 nonwastewaters: 1-Naphthylamine .....	15
	Concentration (in mg/l)
U167 wastewaters: 1-Naphthylamine .....	0.37
	Concentration (in mg/kg)
U168 nonwastewaters: 2-Naphthylamine .....	15
	Concentration (in mg/l)
U168 wastewaters: 2-Naphthylamine .....	1.8



	Concentration (in mg/kg)
U169 nonwastewaters: Nitrobenzene .....	14
	Concentration (in mg/l)
U169 wastewaters: Nitrobenzene .....	0.033
	Concentration (in mg/kg)
U170 nonwastewaters: 4-Nitrophenol .....	65
	Concentration (in mg/l)
U170 wastewaters: 4-Nitrophenol .....	0.18
	Concentration (in mg/kg)
U172 nonwastewaters: N-Nitroso-di-n-butylamine .....	54
	Concentration (in mg/l)
U172 wastewaters: N-Nitroso-di-n-butylamine .....	0.67
	Concentration (in mg/kg)
U174 nonwastewaters: N-Nitrosodiethylamine .....	28
	Concentration (in mg/l)
U174 wastewaters: N Nitrosodiethylamine .....	0.67
	Concentration (in mg/kg)
U179 nonwastewaters: N-Nitrosopiperidine .....	220
	Concentration (in mg/l)
U179 wastewaters: N-Nitrosopiperidine .....	1.3
	Concentration (in mg/kg)
U180 nonwastewaters: N-Nitrosopyrrolidine .....	220
	Concentration (in mg/l)
U180 wastewaters: N-Nitrosopyrrolidine .....	1.3
	Concentration (in mg/kg)
U181 nonwastewaters: 5-Nitro-o-toluidine .....	56

	Concentration (in mg/l)
U181 wastewaters: 5-Nitro-o-toluidine .....	2.2
	Concentration (in mg/kg)
U183 nonwastewaters: Pentachlorobenzene .....	37
	Concentration (in mg/l)
U183 wastewaters: Pentachlorobenzene .....	0.096
	Concentration (in mg/kg)
U184 nonwastewaters: Pentachloroethane .....	31
	Concentration (in mg/l)
U184 wastewaters: Pentachloroethane .....	0.037
	Concentration (in mg/kg)
U185 nonwastewaters: Pentachloronitrobenzene .....	4.8
	Concentration (in mg/l)
U185 wastewaters: Pentachloronitrobenzene .....	0.096
	Concentration (in mg/kg)
U187 nonwastewaters: Phenacetin .....	16
	Concentration (in mg/l)
U187 wastewaters: Phenacetin .....	0.36
	Concentration (in mg/kg)
U188 nonwastewaters: Phenol .....	6.2
	Concentration (in mg/l)
U188 wastewaters: Phenol .....	0.091
	Concentration (in mg/kg)
U192 nonwastewaters: Pronamide .....	1.5
	Concentration (in mg/l)
U192 wastewaters: Pronamide .....	0.039

	Concentration (in mg/kg)
U196 nonwastewaters: Pyridine .....	16
	Concentration (in mg/l)
U196 wastewaters: Pyridine .....	0.031
	Concentration (in mg/kg)
U197 nonwastewaters: p-Benzquinone .....	180
	Concentration (in mg/l)
U197 wastewaters: p-Benzquinone .....	13
	Concentration (in mg/kg)
U201 nonwastewaters: Resorcinol .....	1.8
	Concentration (in mg/l)
U201 wastewaters: Resorcinol .....	8.2
	Concentration (in mg/kg)
U203 nonwastewaters: Safrole .....	22
	Concentration (in mg/l)
U203 wastewaters: Safrole .....	1.3
U204 wastewaters: Selenium .....	0.79
U205 wastewaters: Selenium .....	0.79
	Concentration (in mg/kg)
U207 nonwastewaters: 1,2,4,5-Tetrachlorobenzene .....	19
	Concentration (in mg/l)
U207 wastewaters: 1,2,4,5-Tetrachlorobenzene .....	0.023
	Concentration (in mg/kg)
U208 nonwastewaters: 1,1,2,2-Tetrachloroethane .....	6.2
	Concentration (in mg/l)
U208 wastewaters: 1,1,1,2-Tetrachloroethane .....	0.007



	Concentration (in mg/kg)
U209 nonwastewaters: 1,1,2,2-Tetrachloroethane.....	6.2
	Concentration (in mg/l)
U209 wastewaters: 1,1,2,2-Tetrachloroethane.....	0.007
	Concentration (in mg/kg)
U210 nonwastewaters: Tetrachloroethylene.....	6.2
	Concentration (in mg/l)
U210 wastewaters: Tetrachloroethylene.....	0.007
	Concentration (in mg/kg)
U211 nonwastewaters: Carbon tetrachloride.....	6.2
	Concentration (in mg/l)
U211 wastewaters: Carbon tetrachloride.....	0.007
U214 wastewaters: Thallium.....	0.14
U215 wastewaters: Thallium.....	0.14
U216 wastewaters: Thallium.....	0.14
U217 wastewaters: Thallium.....	0.14
	Concentration (in mg/kg)
U220 nonwastewaters: Toluene.....	28
	Concentration (in mg/l)
U220 wastewaters: Toluene.....	0.028
	Concentration (in mg/kg)
U225 nonwastewaters: Bromoform.....	15
	Concentration (in mg/l)
U225 wastewaters: Bromoform.....	16

	Concentration (in mg/kg)
U226 nonwastewaters: 1,1,1-Trichloroethane.....	6.2
	Concentration (in mg/l)
U226 wastewaters: 1,1,1-Trichloroethane.....	0.007
	Concentration (in mg/kg)
U227 nonwastewaters: 1,1,2-Trichloroethane.....	6.2
	Concentration (in mg/l)
U227 wastewaters: 1,1,2-Trichloroethane.....	0.007
	Concentration (in mg/kg)
U228 nonwastewaters: Trichloroethylene.....	5.6
	Concentration (in mg/l)
U228 wastewaters: Trichloroethylene.....	0.007
	Concentration (in mg/kg)
U239 nonwastewaters: Xylenes (Total).....	33
	Concentration (in mg/l)
U239 wastewaters: Xylenes (Total).....	0.032
	Concentration (in mg/kg)
U240 nonwastewaters (see also 268.42 for salts and esters): 2,4-D.....	10
	Concentration (in mg/l)
U240 wastewaters (see also 268.42 for salts and esters): 2,4-D.....	0.013
	Concentration (in mg/kg)
U243 nonwastewaters: Hexachloropropene.....	37
	Concentration (in mg/l)
U243 wastewaters: Hexachloropropene.....	0.047

	Concentration (in mg/kg)
U247 nonwastewaters: Methoxychlor.....	0.18
	Concentration (in mg/l)
U247 wastewaters: Methoxychlor.....	0.00036
Multi-source leachate nonwastewaters	Total composition (mg/kg)
Acetone.....	0.14
Acenaphthalene.....	3.4
Acenaphthene.....	9.1
Acetonitrile.....	0.35
Acrolein.....	2.8
Acetophenone.....	9.6
Acrylamide.....	1.5
2 Acetylamino fluorene.....	13
Acrylonitrile.....	0.28
Aldrin.....	0.066
4-Aminobiphenyl.....	13
Aniline.....	14
Anthracene.....	7.7
Aramite.....	2.5
Aroclor 1016.....	0.92
Aroclor 1221.....	0.92
Aroclor 1232.....	0.92
Aroclor 1242.....	0.92
Aroclor 1248.....	0.92
Aroclor 1254.....	1.8
Aroclor 1260.....	1.8
alpha-BHC.....	0.066
beta-BHC.....	0.066
delta-BHC.....	0.066
gamma-BHC.....	0.066
Benzene.....	36
Benzal chloride.....	6.2
Benzene thiol.....	6.2
Benzo(a)anthracene.....	3.6
Benzo(b)fluoranthene.....	3.4
Benzo(k)fluoranthene.....	3.4
Benzo(g,h,i)perylene.....	1.8
Benzo(a)pyrene.....	3.6
p-Benzquinone.....	180
Bromodichloromethane.....	16
Bromoform.....	16
Bromomethane (methyl bromide).....	16
4-Bromophenyl phenyl ether.....	16
n-Butanol.....	2.5
Butyl benzyl phthalate.....	15
2-sec-Butyl-4,6-dinitrophenol.....	2.5
Carbon tetrachloride.....	6.2
Chlordane.....	0.13
p-Chloroaniline.....	16
Chlorobenzene.....	5.7
Chlorobenzilate.....	6.6
2-Chloro-1,3-butadiene.....	28
Chlorodibromomethane.....	16
Chloroethane.....	6.0
bis-(2-Chloroethoxy) methane.....	7.2
bis-(2-Chloroethyl) ether.....	7.2
Chloroform.....	6.2
bis-(2-Chloroisopropyl) ether.....	7.2
p-Chloro-m-cresol.....	14
Chloromethane.....	5.6
2-Chloronaphthalene.....	5.6
2-Chlorophenol.....	5.7
3-Chloropropene.....	28
Chrysene.....	3.6
o-Cresol.....	5.6
Cresol (m- and p- isomers).....	3.2
Cyclohexanone.....	1.9



Multi-source leachate nonwastewaters	Total composition (mg/kg)	Multi-source leachate nonwastewaters	Total composition (mg/kg)	Multi-source leachate nonwastewaters	Total composition (mg/kg)
1,2-Dibromo-3-Chloropropane.....	16	Endosulfan sulfate.....	0.13	N-Nitrosomethylethylamine.....	2.3
1,2-Dibromoethane (Ethylene dibro- mide).....	16	Endrin.....	0.13	N-Nitrosomorpholine.....	2.3
Dibromomethane.....	16	Endrin aldehyde.....	0.13	N-Nitrosopiperidine.....	220
2,4-Dichlorophenoxyacetic acid (2,4- D).....	10	Ethyl acetate.....	5.6	N-Nitrosopyrrolidine.....	220
o,p'-DDD.....	0.087	Ethyl benzene.....	6.0	Parathion.....	0.1
p,p'-DDD.....	0.087	Ethyl ether.....	140	Pentachlorobenzene.....	37
o,p'-DDE.....	0.087	bis-(2-Ethylhexyl) phthalate.....	28	Pentachlorodibenzo-furans.....	0.001
p,p'-DDE.....	0.087	Ethyl methacrylate.....	160	Pentachlorodibenzo-p-dioxins.....	0.001
o,p'-DDT.....	0.087	Famphur.....	0.1	Pentachloroethane.....	31
p,p'-DDT.....	0.087	Fluoranthene.....	3.6	Pentachloronitrobenzene.....	4.8
Dibenzo(a,h)anthracene.....	13	Fluorene.....	7.7	Pentachlorophenol.....	37
1,2,7,8-Dibenzopyrene.....	22	Fluorotrichloromethane.....	33	Phenacetin.....	16
tris-(2,3-Dibromopropyl) phosphate.....	0.1	Heptachlor.....	0.066	Phenanthrene.....	3.4
m-Dichlorobenzene.....	6.2	Heptachlor epoxide.....	0.066	Phenol.....	6.2
o-Dichlorobenzene.....	6.2	Hexachlorobenzene.....	37	Phorate.....	0.1
p-Dichlorobenzene.....	6.2	Hexachlorobutadiene.....	28	Phthalic anhydride (measured asphthalic acid).....	28
3,3'-Dichlorobenzidine.....	16	Hexachlorocyclopentadiene.....	4.8	Propanenitrile.....	360
cis-1,4-Dichloro-2-butene.....	30	Hexachlorodibenzo-p-dioxins.....	0.001	Pronamide.....	1.5
trans-1,4-Dichloro-2-butene.....	30	Hexachloroethane.....	30	Pyrene.....	9.1
Dichlorodifluoromethane.....	10	Hexachlorophene.....	1.1	Pyridine.....	16
1,1-Dichloroethane.....	6.2	Hexachloropropene.....	37	Resorcinol.....	1.8
1,2-Dichloroethane.....	6.2	Indeno(1,2,3-c,d)pyrene.....	3.6	Safrole.....	22
1,1-Dichloroethylene.....	6.2	Iodomethane.....	65	Silvex (2,4,5-TP).....	2.1
trans-1,2-Dichloroethylene.....	6.2	Isobutanol.....	170	2,4,5-T.....	2.1
2,4-Dichlorophenol.....	14	Isodrin.....	0.010	1,2,4,5-Tetrachlorobenzene.....	19
2,6-Dichlorophenol.....	14	Isosafrole.....	2.6	Tetrachlorodibenzo-furans.....	0.001
1,2-Dichloropropane.....	15	Kepone.....	0.043	Tetrachlorodibenzo-p-dioxins.....	0.001
cis-1,3-Dichloropropene.....	15	Methacrylonitrile.....	84	1,1,1,2-Tetrachloroethane.....	6.2
trans-1,3-Dichloropropene.....	15	Methanol.....	140	1,1,2,2-Tetrachloroethane.....	6.2
Dieldrin.....	0.13	Methapyrene.....	6.9	Tetrachloroethylene.....	6.2
Diethyl phthalate.....	28	Methoxychlor.....	0.18	2,3,4,6-Tetrachlorophenol.....	37
p-Dimethylaminoazobenzene.....	29	3-Methylchloanthrene.....	33	Toluene.....	28
2,4-Dimethyl phenol.....	14	4,4-Methylene-bis-(2-chloroaniline).....	29	Toxaphene.....	1.3
Dimethyl phthalate.....	28	Methylene chloride.....	31	1,2,4-Trichlorobenzene.....	19
Di-n-butyl phthalate.....	28	Methyl ethyl ketone.....	200	1,1,1-Trichloroethane.....	6.2
1,4-Dinitrobenzene.....	2.3	Methyl isobutyl ketone.....	33	1,1,2-Trichloroethane.....	6.2
4,6-Dinitroresol.....	140	Methyl methacrylate.....	160	Trichloroethylene.....	5.6
2,4-Dinitrophenol.....	140	Methyl Parathion.....	0.1	2,4,5-Trichlorophenol.....	37
2,4-Dinitrotoluene.....	140	Naphthalene.....	5.9	2,4,6-Trichlorophenol.....	37
2,6-Dinitrotoluene.....	28	1,4-Naphthoquinone.....	1.9	1,2,3-Trichloropropane.....	28
Di-n-octyl phthalate.....	28	1-Naphthylamine.....	15	1,1,2-Trichloro-1,2,2-trifluoro-ethane.....	28
Diphenylamine.....	13	2-Naphthylamine.....	15	Vinyl chloride.....	0.035
Diphenylnitrosoamine.....	13	p-Nitroaniline.....	28	Xylene(s).....	33
Di-n-propylnitrosoamine.....	14	Nitrobenzene.....	14		
1,4-Dioxane.....	280	5-Nitro-o-toluidine.....	56		
Disulfoton.....	0.1	4-Nitrophenol.....	65		
Endosulfan I.....	0.066	N-Nitrosodiethylamine.....	28		
Endosulfan II.....	0.13	N-Nitrosodimethylamine.....	56		
		N-Nitroso-di-n-butylamine.....	54		
				Cyanides (Total).....	1.5
				Cyanides (Amenable).....	0.10



Multi-source leachate wastewaters <sup>1</sup>	Total Composition (mg/l)	Multi-source leachate wastewaters <sup>1</sup>	Total Composition (mg/l)	Multi-source leachate wastewaters <sup>1</sup>	Total Composition (mg/l)
Acetone.....	0.162	p,p'-DDD.....	0.023	Hexachloropropene.....	0.025
Acenaphthalene.....	0.059	o,p'-DDE.....	0.031	Indeno(1,2,3-c,d)pyrene.....	0.004
Acenaphthene.....	0.059	p,p' DDE.....	0.031	Iodomethane.....	0.162
Acetonitrile.....	0.097	o,p'-DDT.....	0.00392	Isobutanol.....	0.125
Acrolein.....	0.162	p,p'-DDT.....	0.00392	Isodrin.....	0.021
Acetophenone.....	41.198	Dibenzo(a,e)pyrene (1,2,7,8).....	0.041	Isosafrole.....	9.542
Acrylamide.....	1.042	Dibenzo(a,h)anthracene.....	0.040	Kepone.....	0.0095
2-Acetylaminofluorene.....	0.040	tris-(2,3-Dibromopropyl) phosphate.....	0.080	Methacrylonitrile.....	28.
Acrylonitrile.....	0.242	m-Dichlorobenzene.....	0.014	Methanol.....	0.033
Aldrin.....	0.021	o-Dichlorobenzene.....	0.064	Methapyrene.....	9.542
4-Aminobiphenyl.....	0.095	p-Dichlorobenzene.....	0.088	Methoxychlor.....	0.252
Aniline.....	0.807	3,3'-Dichlorobenzidine.....	0.095	3-Methylchloranthrene.....	0.004
Anthracene.....	0.059	cis-1,4-Dichloro-2-butene.....	0.021	4,4-Methylene-bis-(2-chloroaniline).....	0.358
Aramite.....	0.020	trans-1,4-Dichloro-2-butene.....	0.021	Methylene chloride.....	0.089
Aroclor 1016.....	0.013	Dichlorodifluoromethane.....	0.130	Methyl ethyl ketone.....	0.016
Aroclor 1221.....	0.014	1,1-Dichloroethane.....	0.059	Methyl isobutyl ketone.....	0.032
Aroclor 1232.....	0.013	1,2-Dichloroethane.....	0.211	Methyl methacrylate.....	0.032
Aroclor 1242.....	0.017	1,1-Dichloroethylene.....	0.025	Methyl Parathion.....	0.336
Aroclor 1248.....	0.013	trans-1,2-Dichloroethylene.....	0.054	Naphthalene.....	0.059
Aroclor 1254.....	0.014	2,4-Dichlorophenol.....	0.076	1,4-Naphthoquinone.....	0.020
Aroclor 1260.....	0.014	2,6-Dichlorophenol.....	0.076	1-Naphthylamine.....	0.378
alpha-BHC.....	0.00014	1,2-Dichloropropane.....	0.482	2-Naphthylamine.....	0.378
beta-BHC.....	0.00014	cis-1,3-Dichloropropene.....	0.021	p-Nitroaniline.....	0.020
delta-BHC.....	0.023	trans-1,3-Dichloropropene.....	0.021	Nitrobenzene.....	0.068
gamma-BHC.....	0.00168	Dieldrin.....	0.017	5-Nitro-o-toluidine.....	0.230
Benzal chloride.....	0.040	Diethyl phthalate.....	0.203	4-Nitrophenol.....	0.124
Benzene.....	0.136	3,3-Dimethoxybenzidine.....	0.095	N-Nitrosodiethylamine.....	0.290
Benzene thiol.....	0.219	p-Dimethylaminoazobenzene.....	0.095	N-Nitrosodimethylamine.....	0.290
Benzo(a)anthracene.....	0.059	3,3'-Dimethylbenzidine.....	0.095	N-Nitroso-di-n-butylamine.....	0.290
Benzo(a)pyrene.....	0.061	2,4-Dimethyl phenol.....	0.036	N-Nitrosomethylethylamine.....	0.290
Benzo(b)fluoranthene.....	0.040	Dimethyl phthalate.....	0.047	N-Nitrosomorpholine.....	0.290
Benzo(g,h,i)perylene.....	0.004	Di-n-butyl phthalate.....	0.057	N-Nitrosopiperidine.....	0.010
Benzo(k)fluoranthene.....	0.059	1,4-Dinitrobenzene.....	0.231	N-Nitrosopyrrolidine.....	0.010
p-Benzoquinone.....	0.020	4,6-Dinitrocresol.....	0.277	Parathion.....	0.336
Bromodichloromethane.....	0.198	2,4-Dinitrophenol.....	0.123	Pentachlorobenzene.....	0.040
Bromomethane (methyl bromide).....	0.065	2,4-Dinitrotoluene.....	0.235	Pentachlorodibenzo-furans.....	0.000023
4-Bromophenyl phenyl ether.....	0.040	2,6-Dinitrotoluene.....	0.398	Pentachlorodibenzo-p-dioxins.....	0.000018
n-Butanol.....	0.137	Di-n-octyl phthalate.....	0.012	Pentachloroethane.....	0.040
Butyl benzyl phthalate.....	0.012	Di-n-propylnitrosoamine.....	0.400	Pentachloronitrobenzene.....	0.040
2-sec-Butyl-4,6-dinitrophenol.....	1.436	Diphenylamine.....	0.378	Pentachlorophenol.....	0.082
Carbon tetrachloride.....	0.032	1,2-Diphenyl hydrazine.....	0.063	Phenacetin.....	9.542
Carbon disulfide.....	0.179	Diphenylnitrosoamine.....	0.290	Phenanthrene.....	0.059
Chlordane.....	0.00327	1,4-Dioxane.....	28	Phenol.....	0.026
p-Chloroaniline.....	43.736	Disulfoton.....	0.770	Phorate.....	0.770
Chlorobenzene.....	0.032	Endosulfan I.....	0.023	Phthalic anhydride (measured as phthalic acid).....	0.020
Chlorobenzilate.....	0.072	Endosulfan II.....	0.029	Propanenitrile (ethyl cyanide).....	23.0
2-Chloro-1,3-butadiene.....	0.032	Endosulfan sulfate.....	0.029	Pronamide.....	0.083
Chlorodibromomethane.....	0.032	Endrin.....	0.00279	Pyrene.....	0.067
Chloroethane.....	0.268	Endrin aldehyde.....	0.025	Pyridine.....	0.008
bis-(2-Chloroethoxy) methane.....	0.008	Ethyl acetate.....	0.195	Resorcinol.....	0.042
bis-(2-Chloroethyl) ether.....	0.024	Ethyl benzene.....	0.032	Safrole.....	9.542
2-Chloroethyl vinyl ether.....	0.035	Ethyl ether.....	0.067	Silvex (2,4,5-TP).....	0.721
Chloroform.....	0.046	bis-(2-Ethylhexyl) phthalate.....	0.279	2,4,5-T.....	0.721
bis-(2-Chloroisopropyl) ether.....	0.040	Ethyl methacrylate.....	0.032	1,2,4,5-Tetrachlorobenzene.....	0.040
p-Chloro-m-cresol.....	0.053	Ethylene oxide.....	127.4	Tetrachlorodibenzo-furans.....	0.000088
Chloromethane (methyl chloride).....	0.190	Famphur.....	0.336	Tetrachlorodibenzo-p-dioxins.....	0.000062
2-Chloronaphthalene.....	0.040	Fluoranthene.....	0.068	1,1,1,2-Tetrachloroethane.....	0.032
2-Chlorophenol.....	0.051	Fluorene.....	0.059	1,1,2,2-Tetrachloroethane.....	0.032
3-Chloropropene.....	0.021	Fluorotrichloromethane.....	0.023	Tetrachloroethylene.....	0.056
Chrysene.....	0.059	Heptachlor.....	0.00116	2,3,4,6-Tetrachlorophenol.....	0.051
o-Cresol.....	0.189	Heptachlor epoxide.....	0.016	Toluene.....	0.080
Cresol (m- and p-isomers).....	1.315	Hexachlorobenzene.....	0.040	Toxaphene.....	0.0095
Cyclohexanone.....	0.020	Hexachlorobutadiene.....	0.040	Tribromomethane (bromoform).....	0.357
1,2-Dibromo-3-chloropropane.....	0.065	Hexachlorocyclopentadiene.....	0.041	1,2,4-Trichlorobenzene.....	0.046
1,2-Dibromoethane.....	0.016	Hexachlorodibenzo-furans.....	0.000035	1,1,1-Trichloroethane.....	0.054
Dibromomethane.....	0.065	Hexachlorodibenzo-p-dioxins.....	0.000031	1,1,2-Trichloroethane.....	0.054
2,4-Dichlorophenoxyacetic acid.....	0.721	Hexachloroethane.....	0.040		
o,p'-DDD.....	0.023	Hexachlorophene.....	0.00111		



Multi-source leachate wastewaters <sup>1</sup>	Total Composition (mg/l)
Trichloroethylene.....	0.054
2,4,5-Trichlorophenol.....	0.008
2,4,6-Trichlorophenol.....	0.008
1,2,3-Trichloropropane.....	0.482
1,1,2 Trichloro-1,2,2-trifluoroethane.....	6.496
Vinyl chloride.....	0.268
Xylene(s).....	0.182
Cyanides (Total).....	1.9
Cyanides (Amenable).....	0.10
Fluoride.....	35.
Sulfide.....	14.
Antimony.....	1.930
Arsenic.....	1.390
Barium.....	1.150
Beryllium.....	0.820
Cadmium.....	0.200
Chromium (Total).....	0.370
Copper.....	1.280
Lead.....	0.280
Mercury.....	0.150
Nickel.....	0.550
Selenium.....	0.820
Silver.....	0.290
Thallium.....	1.400
Vanadium.....	0.042
Zinc.....	1.020

<sup>1</sup> Note: These proposed standards for wastewater forms of Multi-source leachate represent alternative standards for the U and P wastewaters that correspond to chemicals listed in this table. As an example: the standard for acetone listed above is an alternative standard for U002 (acetone) wastewaters, etc. Not all constituents listed in the above table have a corresponding U or P waste codes. These generally represent other Appendix VIII (40 CFR 261) constituents that were not listed as U or P wastes. See background information on the development of these alternative standards in section III.A.1.h.(6).(b.).

8. Appendix IV is added to Part 268 to read as follows:

#### APPENDIX IV—ORGANIC LAB PACKS

Hazardous waste with the following EPA waste codes may be placed in an "organic lab pack."

P001, P002, P003, P004, P005, P007, P008, P014, P016, P017, P018, P022, P023, P024, P026, P027, P028, P034, P037, P039, P040, P041, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P057, P058, P059, P060, P062, P064, P066, P067, P069, P070, P071, P072, P075, P077, P082, P085, P088, P089, P093, P094, P101, P108, P109, P111, P116, P118, P123

U001, U002, U003, U004, U005, U006, U008, U010, U011, U012, U014, U015, U016, U017, U018, U019, U021, U022, U024, U025, U026, U027, U030, U031, U034, U035, U036, U037, U039, U041, U042, U044, U046, U047, U048, U049,

U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U070, U071, U072, U073, U074, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U087, U089, U090, U091, U092, U093, U094, U095, U097, U101, U105, U106, U108, U110, U111, U112, U113, U114, U116, U117, U118, U119, U120, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U137, U138, U140, U141, U142, U143, U147, U148, U150, U154, U156, U157, U158, U159, U161, U165, U166, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U187, U188, U191, U192, U193, U194, U197, U200, U201, U202, U203, U206, U207, U208, U209, U210, U211, U213, U218, U219, U220, U222, U225, U226, U227, U228, U235, U236, U237, U238, U239, U240, U243, U244, U247, U248

F001, F002, F003, F004, F005, F010, F020, F021, F023, F026, F027, F028

K009, K010, K014, K015, K016, K017, K018, K019, K020, K021, K023, K024, K030, K031, K032, K033, K034, K035, K036, K038, K039, K040, K041, K042, K043, K054, K073, K085, K093, K094, K095, K096, K097, K098, K105, K107, K111, K112, K113, K114, K115, K116, K071

D001, D012, D013, D014, D015, D016, D017.

9. Appendix V is added to part 268 to read as follows:

#### APPENDIX V—INORGANIC LAB PACKS

Inorganic hazardous waste streams which contain only the following constituents may be placed in an "inorganic lab pack."

Barium  
Cadmium  
Trivalent chromium  
Lead  
Silver

#### PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

1. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), and 6926.

#### Subpart A—Requirements for Final Authorization

2. Section 271.1(j) is amended by adding the following entry to Table 1 in chronological order by date of publication in the Federal Register:

##### § 271.1 Purpose and scope.

(j) \* \* \*

TABLE 1.—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Promulgation date	Title of regulation	FEDERAL REGISTER reference	Effective date
[Insert date of publication].	Land Disposal Restrictions for Third wastes.	[Insert page numbers].	May 8, 1990.

3. Section 271.1(j) is amended by revising the entry for May 8, 1990 in Table 2 to read as follows:

##### § 271.1 Purpose and Scope.

(j) \* \* \*

TABLE 2.—SELF-IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Effective date	Self-implementing provision	RCRA citation	FEDERAL REGISTER reference
May 8, 1990.	Prohibition on land disposal of 3/3 of listed wastes.	3004(g)(6)(C)	[Insert date of publication and page numbers of this document.]

[FR Doc. 89-27028 Filed 11-21-89; 8:45 am]

BILLING CODE 6560-50-M







# Estimate Federal Transit

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Wednesday  
November 22, 1989

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## Part III

### Office of Management and Budget

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Rescissions and Deferrals; Cumulative  
Reports; Notice



**OFFICE OF MANAGEMENT AND  
BUDGET****Cumulative Report on Rescissions and  
Deferrals**

November 1, 1989.

This report is submitted in fulfillment of the requirement of section 1014(e) of the Impoundment Control Act of 1974 (Pub. L. 93-344). Section 1014(e) requires a monthly report listing all budget authority for this fiscal year for which, as of the first day of the month, a special message has been transmitted to Congress.

This report gives the status, as of November 1, 1989, of seven deferrals contained in the first special message of FY 1990. This message was transmitted to Congress on October 2, 1989.

**Rescissions**

As of the date of this report, no rescission proposals are pending before Congress.

**Deferrals (Table A and Attachment A)**

As of November 1, 1989, \$1,370.2 million in budget authority was being deferred from obligation. Attachment A

shows the history and status of each deferral reported during FY 1990.

**Information from Special Messages**

The special message containing information on the deferrals covered by this cumulative report is printed in the **Federal Register** cited below:

54 FR 41410, Friday, October 6, 1989.

Richard G. Darman,

*Director.*

BILLING CODE 3110-01-M



TABLE A  
STATUS OF 1990 DEFERRALS

	Amount (In millions of dollars)
Deferrals proposed by the President.....	1,380.4
Routine Executive releases through November 1, 1989.....	-10.2
Overtaken by the Congress.....	0
Currently before the Congress.....	1,370.2

Attachments



## Attachment A - Status of Deferrals - Fiscal Year 1990

As of November 1, 1989 Amounts in Thousands of Dollars	Deferral Number	Amount Transmitted Original Request	Amount Transmitted Subsequent Change (+)	Date of Message	Cumulative OMB/Agency Releases (-)	Congres- sionally Required Releases (-)	Congres- sional Action	Cumulative Adjust- ments (+)	Amount Deferred as of 11-1-89
<b>FUNDS APPROPRIATED TO THE PRESIDENT</b>									
International Security Assistance Economic support fund.....	D90-1	271,000		10-02-89	10,200				260,800
<b>DEPARTMENT OF AGRICULTURE</b>									
Forest Service Expenses, brush disposal.....	D90-2	188,680		10-02-89					188,680
Cooperative work.....	D90-3	410,189		10-02-89					410,189
<b>DEPARTMENT OF DEFENSE - CIVIL</b>									
Wildlife Conservation, Military Reservations Wildlife conservation, Defense.....	D90-4	1,047		10-02-89					1,047
<b>DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>									
Social Security Administration Limitation on administrative expenses (construction).....	D90-5	7,078		10-02-89					7,078
<b>DEPARTMENT OF STATE</b>									
Bureau for Refugee Programs United States emergency refugee and migration assistance fund, executive.....	D90-6	44		10-02-89					44



## Attachment A - Status of Deferrals - Fiscal Year 1990

As of November 1, 1989 Amounts in Thousands of Dollars	Agency/Bureau/Account	Deferral Number	Amount Transmitted Original Request	Amount Transmitted Subsequent Change (+)	Date of Message	Cumulative OMB/Agency Releases (-)	Congres- sionally Required Releases (-)	Congres- sional Action	Cumulative Adjust- ments (+)	Amount Deferred as of 11-1-89
DEPARTMENT OF TRANSPORTATION										
Federal Aviation Administration										
Facilities and equipment (Airport and										
airway trust fund).....										
		D90-7	502,361		10-02-89					502,361
TOTAL, DEFERRALS.....			1,380,400	0		10,200	0		0	1,370,200

[FR Doc. 89-27376 Filed 11-21-89; 8:45 am]

BILLING CODE 3110-01-C







# 18 Federal Register

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Wednesday  
November 22, 1989

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## Part IV

### Department of Transportation

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Federal Aviation Administration

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#### 14 CFR Part 25

Standards for Approval for High Altitude  
Operation of Subsonic Transport  
Airplanes; Notice of Proposed  
Rulemaking

Proposed Advisory Circular 25-XX, High  
Altitude Subsonic Flight; Notice



## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## [14 CFR Part 25]

[Docket No. 26070, Notice No. 89-31]

RIN 2120-AB18

## Standards for Approval for High Altitude Operation of Subsonic Transport Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

**SUMMARY:** This notice proposes an amendment to the Federal Aviation Regulations (FAR) to specify airplane and equipment airworthiness standards for subsonic transport airplanes to be operated up to an altitude of 51,000 feet. This proposal is prompted by an increase in the number of applications received to raise the maximum certificated operating altitude for transport category airplanes. This action is intended to ensure an acceptable level of safety for airplanes operated at high altitudes.

**DATES:** Comments must be received on or before May 21, 1990.

**ADDRESS:** Comments on this proposal may be mailed in duplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC-204), Docket No. 26070, 800 Independence Avenue SW., Washington, DC 20591; or delivered in duplicate to: Room 915G, 800 Independence Avenue SW., Washington, DC 20591. All comments must be marked: Docket No. 26070. Comments may be inspected in Room 915G weekdays, except Federal holidays, between 8:30 a.m. and 5:00 p.m. In addition, the FAA is maintaining an information docket of comments in the Office of the Assistant Chief Counsel (ANM-7), FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168. Comments in the information docket may be inspected in the Office of the Assistant Chief Counsel weekdays, except Federal holidays, between 7:30 a.m. and 4:00 p.m.

**FOR FURTHER INFORMATION CONTACT:** Gary Lium, Flight Test and Systems Branch, ANM-111, Transport Airplane Directorate, Aircraft Certification Service, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168; telephone (206) 431-2118.

## SUPPLEMENTARY INFORMATION:

## Comments Invited

Interested persons are invited to participate in the proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments relating to the environmental, energy, or economic impact that might result from adopting the proposals contained in this notice are invited. Substantive comments should be accompanied by cost estimates. Commenters should identify the regulatory docket or notice number and submit comments, in duplicate, to the Rules Docket address above. All comments received on or before the closing date for comments will be considered by the Administrator before taking action on the proposed rulemaking. The proposals contained in this notice may be changed in light of comments received. All comments will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Commenters wishing the FAA to acknowledge receipt of their comments must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 26070." The postcard will be date/time stamped and returned to the commenter.

## Availability of NPRM

Any person may obtain a copy of this NPRM by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Avenue SW., Washington, DC 20591; or by calling (202) 267-3484. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedures.

## Background

The higher operational altitudes made feasible by the advent of turbojet transport airplanes introduced certain risks with respect to crew and passenger breathing that were not experienced with earlier propeller-driven airplanes. Accordingly, certification standards were developed in the early 1950s to permit safe operation of early turbojet transport airplanes up to certain

maximum operating altitudes—typically 41,000 or 42,000 feet. Subsequent to the type certification of the early turbojet transport airplanes, applicants requested approval to operate certain later airplanes at higher altitudes.

The operation of airplanes at altitudes above 40,000 feet usually involves a number of novel or unusual design features that are not addressed by the airworthiness requirements in the current regulations. In order to ensure a level of safety equivalent to that established by part 25 of the FAR, §§ 21.16 and 21.101 of part 21 require that additional standards be developed in the form of special conditions and that compliance with the special conditions be demonstrated.

The greatly increased operational altitudes envisioned for supersonic transport (SST) airplane designs prompted extensive investigation, beginning in the early 1960s, of the additional standards that would be necessary to allow safe operation at even higher altitudes. Although development of the U.S. SST was discontinued, the Anglo-French Concorde SST was eventually certificated for operation to a maximum altitude of 60,000 feet.

During this same time, the FAA concluded that requirements for safe operation of executive transport airplanes at higher altitudes would also be needed. (It is recognized that certain larger, airline-type transport airplanes have been modified for executive use; however, the term "executive transport airplanes," as used herein, refers to the smaller transport airplanes designed expressly for such use.) This conclusion was based primarily on the rapid decompression rate associated with a relatively small cabin volume of an executive transport airplane and the physiological limitations of persons using the oxygen systems typically used in those airplanes. As an interim measure, beginning in 1967, certain executive transport airplanes were permitted to operate to 45,000 feet provided that all occupants wore oxygen masks during all operations above 41,000 feet. Later standards, based on the SST high altitude studies, were developed and applied as special conditions to certificate operation of certain executive transport airplanes to altitudes up to 51,000 feet.

The regulatory changes proposed in this notice would codify and consolidate the different high-altitude criteria that have been made applicable by special conditions to previously certificated subsonic transport airplanes. Unlike the special conditions, the proposed changes would establish objective



standards for high altitude operations, rather than address specific design features. In addition, the proposed changes acknowledge a human physiological limit of 34,000 feet (see Glossary), the level above which persons not using supplementary oxygen are in serious peril. To assure compatibility or equivalency with other provisions of part 25, which were amended after many of the special conditions discussed herein were implemented, these proposed changes are written so that terminology relating to the probability of certain failures is consistent with those other provisions. Generally, the intent of those provisions is to recognize that the degree of hazard of any given failure is inversely related to the probability of occurrence of that failure. Failures that are considered to be catastrophic must be shown to be extremely improbable, and hazardous failures must be shown to be improbable (see Glossary). Examples of these terms are found in §§ 25.671, 25.672 and 25.1309.

It must be noted that widespread operation of transport category airplanes at altitudes greater than 51,000 feet is not currently envisioned. A major factor in an approval for operation up to 51,000 feet is an emergency descent during a decompression, which must be shown to result in a maximum cabin altitude of no more than 40,000 feet. At the present time, technology has not been sufficiently developed to permit an emergency descent from an altitude above 51,000 feet that would meet the cabin altitude requirement. Accordingly, the changes proposed in this notice have been developed to provide adequate standards for safe operation of such airplanes up to that altitude. Should an applicant seek approval to operate a transport category airplane above 51,000 feet, additional standards may be needed for safe operation. If so, appropriate special conditions would be adopted to require compliance with those standards.

## Discussion

The changes proposed in this notice involve ventilation, cabin cooling, pressurization and pressure vessel integrity, and oxygen equipment.

### 1. Ventilation (Airflow and Contamination)

Section 25.831(a) requires each passenger and crew compartment to be ventilated and each crew compartment to have enough fresh air to enable crewmembers to perform their duties without undue discomfort or fatigue. A minimum of 10 cubic feet of fresh air per minute per crewmember is required.

Section 25.1309 (specifically, §§ 25.1309(b)(2) and 25.1309(d)(3)) requires that the effects on occupants of any failures of required systems be analyzed, but § 25.1309 is a general rule and does not specifically address minimum airflow requirements.

The executive transport special conditions that have been applied in the past supplemented § 25.831(a) by specifying that the minimum fresh airflow of 10 cubic feet per minute per crewmember was to be provided to each occupant during normal operation. The special conditions also required that each occupant be furnished with enough uncontaminated air to provide reasonable comfort during normal operating conditions and also after any probable failure of any system that would adversely affect the cabin ventilation air. This proposal would amend § 25.831 to include the additional airflow requirements currently contained in previous special conditions.

Some airplanes now incorporate ventilation systems in which fresh air is augmented with conditioned and recirculated air. The proposed § 25.831(a) would permit a ventilation system that uses a mixture of the minimum amount of fresh air and any desired quantity of recirculated air that is shown to be uncontaminated by odors, particulates, or gases. In this regard, the minimum amount of fresh air would be specified by weight rather than by volume in order to provide a parameter independent of altitude. Ten cubic feet of standard air at a typical cabin altitude of 8,000 feet and typical cabin temperature of 75°F. weighs approximately 0.6 pounds. The proposed § 25.831 therefore requires a fresh airflow of 0.6 pounds per minute per occupant. This standard would be equivalent to the present requirement for crewmembers.

### 2. Cabin cooling

During the SST review in the 1960s, it was noted that certain pressurization system failures, whether considered by themselves or in combination with the use of hot ram air for emergency pressurization, could lead to cabin temperatures exceeding human tolerance. The FAA therefore concluded that any failure or combination of failures that could lead to temperature exposures that would cause undue discomfort must be shown to be improbable. Minor corrective actions (e.g., selection of alternate equipment or procedures) would be allowed if necessary for probable failures. The FAA also concluded that any failure or combination of failures that could lead

to intolerable temperature exposures must be extremely improbable. Major corrective actions (e.g., emergency descent, configuration changes) would be allowed for an improbable failure condition. Temperature limits were incorporated into the special conditions imposed on executive transport airplanes when approved for high altitude operation. The SST and executive transport special conditions contained two graphs which explained the requirements for the probable and improbable cases. In formulating this proposal, the "undue discomfort" requirement (improbable case) was determined by the FAA to be adequately addressed by the language of proposed § 25.831(a) without using a specific failure curve. The graph and explanatory information associated with intolerable temperature exposures in the extremely improbable failure condition have been retained and are being proposed as § 25.831(g). This proposal would not allow the time of exposure at any given temperature to exceed the values given in the chart.

### 3. Pressurization and Pressure Vessel Integrity

Proposed § 25.365(d), which seeks to increase the fuselage pressure relief valve safety factor of 1.33 by 25 percent to 1.67, codifies the standard that was originally contained in the SST special conditions to account for the thermal effects on structure caused by the high operating speeds. This increased structural safety factor was also included in the executive transport special conditions to reduce the likelihood of structural failure and to limit the size of the opening if a failure occurs. It is included in the proposed rule for this reason.

The FAA had considered proposing both pressurization standards similar to those previously required by the special conditions for executive transport and separate standards similar to those required for large transport airplanes. The separate standards were thought to be necessary because of the inherent differences in pressurized volume of the two types of transports, and the belief that a larger airplane may decompress more slowly than a smaller airplane. Upon further review, this approach was deemed impractical because certain larger transport airplanes have decompression characteristics more analogous to smaller transport airplanes and vice versa. Therefore, the proposal would apply the same standard to all transport airplanes.

It should be noted that the special conditions required consideration of



specific failures; these are addressed later in this discussion. Subsequent to the issuance of the special conditions, reliability, probability, and damage tolerance concepts addressing other failures and methods of analysis were incorporated into part 25. The proposed rule allows the use of these additional methods of analysis and failure considerations.

The earlier executive transport special conditions required a pressure demand mask (see Glossary). Later special conditions included, pursuant to the recommendations of the FAA Civil Aeromedical Institute (CAMI), a requirement for a pressure demand mask with a mask-mounted regulator (see Glossary). The requirement for the use of the same type of equipment is proposed herein. There are several advantages to using this type mask when operating at high altitudes, including the following:

- a. The pilot receives oxygen immediately without having to first purge the air that would be trapped in the hose between the mask and the regulator of a non-mask-mounted regulator system. The pilot's chances of functioning or recovering from dysfunction (loss of consciousness) are much better when he or she receives oxygen earlier during a decompression.
- b. The minimum oxygen flow schedule is higher, starting at 40 percent in lieu of the zero percent oxygen provided by standard diluter demand equipment.
- c. In the event that the pilot is using the diluter demand setting prior to decompression where the cabin altitude exceeds 34,000 feet, some hypoxia protection is provided.
- d. At 39,000 feet cabin pressure, positive oxygen pressure is supplied at the mask thus reducing hypoxic effects at those altitudes.
- e. If either the 100 percent or the full positive pressure (sometimes called "test") setting is selected, protection from smoke within the cockpit would be provided.

The objective of proposed § 25.841(a) (presurization) when applied in conjunction with proposed § 25.1447(c) (oxygen equipment) is to provide airworthiness standards that would allow subsonic airplanes to operate at their maximum achievable altitudes. This would be the highest altitude for which an applicant chooses to demonstrate that, after decompression caused by a single failure or combination of failures that are not shown to be extremely improbable: (1) The flightcrew will remain alert and be able to fly the airplane; (2) the cabin occupants will be protected from the effects of hypoxia; and (3) in the event

that some occupants do not receive oxygen, they nevertheless will be protected against permanent physiological damage from hypoxia.

Proposed § 25.841(a)(1) would be equivalent to the existing § 25.841(a) with the exception of editorial changes and elimination of the words "reasonably" and "or malfunctions." The proposed "probable" failure criteria are the same as those contained in § 25.1309. The term "combination of failures" has been added to the section to clarify that failure combination that lead to probable depressurization event must also be considered.

Proposed § 25.841(a)(2) would limit exposure of the airplane occupants, after decompression, to a cabin altitude no greater than 40,000 feet. This requirement is unchanged from that previously established in Part 25 for certification of transport category airplanes using diluter demand (flightcrew) and continuous flow (passenger) oxygen equipment (see Glossary).

Proposed § 25.841(a)(2) is a combination of the later executive transport high altitude special conditions and § 25.1309, i.e., the degree of the hazard must be inversely related to the probability of the failure condition. Proposed § 25.841(a)(2) was developed from the recommendations of CAMI and was based on the concept of "Time of Safe Unconsciousness" documented by James G. Gaume (see Reference 1). The use of continuous-flow oxygen masks by passengers following rapid decompression to cabin altitudes above 34,000 feet may fail to provide protection from hypoxia, as noted in the discussion under paragraph 4. "Oxygen Equipment," below. Additionally, some passengers might be exposed to high cabin altitudes following decompression without the use of oxygen. A few passengers may lose consciousness at 34,000 feet cabin altitude, and more may lose consciousness at greater altitudes even with the use of continuous-flow oxygen equipment. Exposure to cabin altitudes in excess of 25,000 feet for more than 2 minutes without supplemental oxygen may cause permanent physiological (brain) damage. Therefore, in order to demonstrate compliance with this rule, approved emergency descent procedures and a cabin altitude analysis must be prepared to ensure that these altitude limits are not exceeded following a decompression failure that is not shown to be extremely improbable.

Proposed § 25.841(a)(3) describes the failure conditions that must be considered in evaluating cabin decompression. Possible modes of

failure to be evaluated include malfunctions and damage from external sources such as tire burst, wheel failure, engine rotor burst, engine fan, compressor or turbine multi-blade failure, and loss of antennas. Sections 25.1309 and 25.571, and associated advisory material, provide guidance in determining the sources of failure. System failures (both latent and active failures), combinations of system failures, system failures combined with pressure vessel leaks, system failures causing engine shutdown, engine failures causing structural and system damage, and structural failures without system failures must all be evaluated. Typical systems include engine bleed air systems, air conditioning systems, power sources, outflow valves and control systems. Failures which expose the occupants to cabin altitudes in excess of either 25,000 feet for more than 2 minutes of 40,000 feet for any amount of time must be shown to be extremely improbable.

The executive transport airplane special conditions required evaluation of engine rotor burst (including fan, compressor and turbine blades, and rotor disc) and complete loss of thrust from all engines. The FAA policy has been to presume that these failures will occur and permit the use of analytical methods to assess the damage. Multiple engine failures have occurred because of secondary effects from engine failure and from operational errors. Multiple fan blade, rotor, and other engine failures have occurred during cruise conditions and have caused cabin decompression. The service history of airplane decompressions resulting from engine failure has been acceptable; but the benefits of this service history are limited because service history of existing engines may not be applicable to new engines. However, flight levels for most transport airplanes have been at a altitude where oxygen equipment is capable of providing adequate protection. Engine burst is most likely to occur during takeoff and climb; however, approximately 20 percent of the known bursts have occurred in cruise mode, not including those caused by bird strikes. The possibility of an engine burst in cruise mode cannot be ignored, and the damage resulting in depressurization must be assessed.

Structural failures in large transport airplanes which would result in decompression are generally considered to include the loss of a typical skin panel bound by a crack stopper pattern, a door seal, window, or windshield, unless the design is such that loss of the windshield is shown to the extremely



improbable when operating at the higher altitudes. Structural failures in executive transport airplanes leading to decompression, discussed in the various special conditions, included the following:

1. Any single failure in the pressurization system combined with the occurrence of a leak produced by the complete loss of a door seal element, or a fuselage leak through an opening having an area 2.0 times the area which produces the maximum permissible fuselage leak rate approved for normal operation in accordance with § 25.841(a).

2. The maximum pressure vessel opening resulting from crack propagation for a period encompassing four normal inspection intervals, where the length of the crack at the time of the initial inspection must be at least one-half the affected panel width. Mid-panel cracks and cracks through skin-stringer and skin-frame combinations must be evaluated.

3. Pressure vessel openings resulting from tire burst, engine rotor burst, loss of antennas, or stall warning vanes, or any probable equipment failure. The effects of such damage while operating under maximum cabin pressure differential must be evaluated.

Subsequent to the initial development and issuance of high altitude special conditions, § 25.571 was amended by Amendments 25-45 (1978) and 25-54 (1980) to require damage-tolerance and fatigue evaluation of airplane primary structure. Section 25.571 requires a showing that a catastrophic failure due to fatigue, corrosion, or accidental damage will not occur throughout the operational life of the airplane (§ 25.571 (a)). The failure conditions described in § 25.571 are related to depressurization. Compliance with § 25.571 requires the development of inspection intervals and procedures for the detection of crack lengths associated with the decompression of critical vent areas. Any event that would expose the occupants to cabin pressure altitudes in excess of the limits established under this proposal must be shown to be extremely improbable.

In demonstrating compliance with proposed § 25.841, the crew is presumed to be using the oxygen equipment prior to a decompression that results in a cabin altitude greater than 34,000 feet, and would presumably perform an emergency descent in accordance with an approved emergency procedure. The time required for the crew to recognize a decompression emergency and don their oxygen masks has been established by tests to be 17 seconds. See proposed Advisory Circular (AC) 25-XX, High

Altitude Subsonic Flight, for a discussion of this recognition time. (Public comments concerning this proposed AC are invited by separate notice.) This 17-second delay would be imposed between the cabin altitude warning and the beginning of action for descent. The critical failure case (probable system failure) must be demonstrated by system failure tests at the maximum airplane altitude. For improbable failures, the cabin altitude could be established by analysis, and verified, if necessary, by tests at a much lower altitude, with the results extrapolated to the higher altitude.

#### 4. Oxygen Equipment.

Both diluter demand and pressure demand oxygen equipment have proven satisfactory for cabin pressure altitudes of 40,000 feet or less when the person using the oxygen equipment is exposed gradually to increased altitudes. However, rapid decompression to cabin pressure altitudes that exceed 34,000 feet temporarily negates the protective qualities of such equipment, unless the mask and oxygen are being used prior to the decompression. This loss of protection is caused by the escape of expanding gases from the lungs, and the presence of air in the hose of an oxygen system with panel-mounted regulators which delays oxygenation of the lungs. In addition, during rapid decompression, an oxygen reversal phenomenon which causes brain deoxygenation occurs unless a high concentration of oxygen is being breathed prior to decompression. Carbon dioxide diffusion into the lungs, accelerated by rapid decompression, further reduces oxygen partial pressure in the lungs. Current experimental data demonstrate that moderate to severe decreases in flightcrew performance can be expected under these circumstances (see Reference 2, § 1.18). To prevent such performance decrements, the use of 100 percent oxygen is proposed for flightcrews operating at airplane altitudes which may expose them to cabin altitudes exceeding 34,000 feet following a pressurization failure.

A pressure demand mask with a mask-mounted regulator will provide oxygen at a minimum flow rate of 40 percent, in accordance with the regulator flow schedule, and will reduce the time needed to displace the carbon dioxide and nitrogen from the lungs. In addition, the regulator can be set to deliver 100 percent oxygen regardless of altitude.

Section 25.1447(c)(3) currently contains a reference to a washroom. This terminology has been replaced in other sections of part 25, and it is proposed that this reference be deleted

for consistency and that the existing provisions of § 25.1447(c)(3) be incorporated into a revised § 25.1447(c)(1). The proposed regulation would not specify demand equipment under § 25.1447(c)(2), because proposed § 25.1447(c)(3)(i) would allow the option of using either diluter demand or pressure demand equipment for airplanes to be operated above an altitude of 25,000 feet, and proposed § 25.144(c)(3)(ii) would require pressure demand equipment for airplanes where decompression may expose the flightcrew to cabin altitudes in excess of 34,000 feet.

Proposed § 25.1447(c)(4) requires that the flight manual contain the limitation that at least one flight crewmember wear and use 100 percent oxygen during flight at airplane operational altitudes at which the findings of the decompression analysis indicate the cabin altitude may exceed 34,000 feet after pressurization failure.

To complement the proposed changes to part 25 discussed above, additional material is proposed in advisory circular form (proposed AC 25-XX, High Altitude Subsonic Flight) as an acceptable, but not the only, means of compliance. As noted above, public comments concerning this proposed advisory circular are invited by separate notice.

#### References

- Reference 1. "Factors Influencing the Time of Safe Unconsciousness (TSU) for Commercial Jet Passengers Following Cabin Decompression" by James G. Gaume, Aerospace Medicine, April 1970.  
Reference 2. Aerospace Information Report (AIR) No. 822 and 825B (Physiology Section); SAE Committee A-10.

Copies of pertinent portions of these documents have been placed in the Rules Docket and are available for public inspection.

#### Glossary

**Physiological Altitude Limits.** The response of human beings to increased altitude varies with the individual. People that smoke or are in poor health will be affected at a much lower altitude than people who are young and in good physical condition. Without supplementary oxygen, most people will begin to experience a reduction in night vision or general visual acuity at approximately 5,000 feet altitude. At an altitude of approximately 10,000 feet, a person will begin to display measurable deterioration in mental abilities and physical dexterity after a period of several hours. At 18,000 feet, the mental deterioration may result in



unconsciousness, and the time of useful consciousness (TUC) is generally about 15 minutes. At 25,000 feet, the TUC for most people is about 3-10 minutes. At altitudes above 25,000 feet, the TUC decreases very rapidly, becoming only a few seconds at 40,000 feet. If a person is breathing 100 percent oxygen, however, the partial pressure of oxygen in the lungs at 34,000 feet altitude is the same as that for a person breathing air at sea level. At 40,000 feet, a person breathing 100 percent oxygen will have the same partial pressure of oxygen in the lungs as a person breathing air at 10,000 feet. Therefore, 34,000 feet is the highest altitude at which a person would be provided complete protection from the effects of hypoxia, and 40,000 feet is the highest altitude at which 100 percent oxygen will provide reasonable protection for the time period needed to descend to a safe altitude.

**Hypoxia.** Hypoxia is a condition caused by insufficient oxygen. It results from the reduced oxygen partial pressure in the inspired air caused by the decrease in barometric pressure with increasing altitude.

**Diluter Demand Oxygen System.** A flightcrew oxygen system consisting of a close-fitting mask with a regulator that supplies a flow of oxygen proportional to cabin altitude. Regulators are usually designed to provide zero percent oxygen and 100 percent cabin air at cabin altitudes of 8,000 feet or less, with the ratio changing to 100 percent oxygen and zero percent cabin air at approximately 34,000 feet cabin altitude. Oxygen is supplied only when the user inhales, reducing the amount of oxygen that is required.

**Pressure Demand Oxygen System.** Similar to diluter demand equipment, except that oxygen is automatically supplied to the mask under pressure at cabin altitudes above approximately 34,000 feet. This pressurized supply of oxygen provides some additional protection against hypoxia at altitudes up to 39,000 feet.

**Pressure Demand Mask with Mask-Mounted Regulator.** A pressure demand mask with the regulator attached directly to the mask, rather than mounted on the instrument panel or other area within the flight deck. The mask-mounted regulator eliminates the problem of a long hose which must be purged of air before oxygen is delivered to the mask.

**Continuous Flow Oxygen System.** The oxygen system typically provided to passengers. The passenger mask contains a rebreather bag, which collects the user's exhaled air, which is then re-inhaled. The oxygen in the rebreather bag is replenished by a

continuous flow of oxygen which is metered similarly to the demand oxygen equipment (zero percent flow below 8,000 feet, and 100 percent at approximately 34,000 feet). Because only a portion of the inspired oxygen is consumed during each breath, the air in the rebreather bag remains highly saturated with oxygen, and is drawn into the lungs at the beginning of inhalation. If the bag is depleted before the breath is completed, cabin air is used for the remainder of the inhalation.

**Probable Failures.** Probable failures may be expected to occur several times during the operational life of each airplane. The probability of occurrence is on the order of  $1 \times 10^{-5}$  or greater (Advisory Circular 25.1309-1A). The consequences of the failure or the required corrective action may not significantly impact the safety of the airplane or the ability of the crew to cope with adverse operating conditions. Systems that operate within this category are referred to as nonessential systems.

**Improbable Failures.** Improbable failures are not expected to occur during the total operational life of a random single airplane of a particular type, but may occur during the total operational life of all airplanes of a particular type. The probability of occurrence is on the order of  $1 \times 10^{-8}$  or less. The consequences of the failure or the required corrective action must not prevent the continued safe flight and landing of the airplane. Systems that operate within this category are referred to as essential systems.

**Extremely Improbable Failures.** Extremely improbable failures are so unlikely that they need not be considered to ever occur, unless engineering judgement would require their consideration. The probability of occurrence is on the order of  $1 \times 10^{-9}$  or less. This category includes failures or combinations of failures that would prevent the continued safe flight and landing of the airplane. Systems that operate within this category are referred to as critical systems.

#### Regulatory Evaluation

The proposals contained in this notice would establish standards in Part 25 for certification of airplanes to operate at high altitude. The areas covered include ventilation, cabin cooling, pressurization and pressure vessel integrity, and oxygen equipment standards. The proposals codify the special conditions or similar requirements which have been issued for airplanes certificated for high altitude operations.

One proposal sets structural strength requirements for airplanes which are

approved for operation above 45,000 feet. Four proposals deal with ventilation and involve the rewording of probability standards and the codification of special conditions. The proposal concerning allowable cabin altitude following decompression codifies one special condition. Finally, proposals dealing with standards for oxygen dispensing units may necessitate a change in required oxygen systems for certain new airplanes yet to be type certificated. The required oxygen equipment would add no more than \$240 to the cost of newly-certificated airplanes with certain design characteristics (i.e., those which may be affected by engine rotor burst because of the location of the engines). Operating costs on these new airplanes are also presumed to increase only minimally. For example, the FAA has received data from one of the major air carriers indicating that its hourly operating costs would be increased by only \$9.50 per hour, assuming a 5-hour flight.

It is not feasible to estimate the total incremental costs for the entire industry that could be attributed to these proposed regulations because of the large number of unquantifiable and highly variable factors involved. Such a cost analysis would require detailed knowledge of the airplane design characteristics which affect the likelihood of sudden decompressions as well as probable operational parameters (i.e., flight altitudes). In any event, the scope of any possible economic impact would be narrowed considerably by the fact that engine burst, considered the most significant failure mode for purposes of this proposal, would affect only a relatively small number of airplanes, i.e., the newly-certificated airplanes with engines located such that fragments from an engine burst would affect the pressure vessel. Moreover, certification for high altitude flight is optional; any minor costs associated with the oxygen systems required by these proposed regulations would be balanced by operational benefits (i.e., lower fuel consumption) accruing to those who seek such certification.

These proposals do not involve additional costs of certification of new airplanes (with the exception of the minimal expected cost of getting oxygen equipment certified) since, in the alternative, high altitude standards would have to be met as special conditions for certification to high altitude operation. Where a marginally higher safety standard would be established by the proposal, as in the case of a requirement under certain conditions for a pressure demand



oxygen mask, there is an increase (though unquantifiable) in safety benefits.

#### Regulatory Flexibility Determination

Under the criteria of the Regulatory Flexibility Act of 1980, the FAA has determined that the proposed rule would not have a significant economic impact on a substantial number of small entities.

Since the Act applies to U.S. entities, only U.S. manufacturers of transport category airplanes would be affected. In the United States, there are two manufacturers that specialize in commercial transport category airplanes, the Boeing Company and the McDonnell Douglas Corporation. In addition, there are a number of general aviation (GA) entities that manufacture other transport category airplanes such as large business jets, including Cessna Aircraft and Learjet.

The FAA size threshold for a determination of a small entity for U.S. airplane manufacturers is 75 employees; any U.S. airplane manufacturer with more than 75 employees is considered not to be a small entity. None of the transport category airplane manufacturers is known to be a small entity. Thus, there would not be a significant economic impact on a substantial number of small entities as the result of the implementation of this proposal.

#### International Trade Impact Assessment

This proposal is not expected to have an adverse impact either on the trade opportunities of U.S. manufacturers of transport category airplanes doing business abroad or on foreign aircraft manufacturers doing business in the U.S. Since the certification rules are applicable to both foreign and domestic manufacturers selling airplanes in the U.S., there would be no competitive trade advantage to either.

#### Federalism Implications

The regulations proposed herein would not have substantial direct effects

on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

#### Conclusion

For the reasons given earlier in the preamble, the FAA has determined that this document involves proposals which are not considered to be significant as defined in Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979), and are not major as defined in Executive Order 12291. In addition, it has been determined under the criteria of the Regulatory Flexibility Act that these regulations, at promulgation, would not have a significant economic impact, positive or negative, on a substantial number of small entities.

#### List of Subjects in 14 CFR Part 25

Air transportation, Aircraft, Aviation safety, Safety.

#### The Proposed Amendment

Accordingly, the FAA proposes to amend part 25 of the Federal Aviation Regulations (FAR) (14 CFR part 25) as follows:

#### PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. The authority citation for part 25 continues to read as follows:

**Authority:** 49 U.S.C. 1344, 1354(a), 1355, 1421, 1423, 1424, 1425, 1428, 1429, 1430; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); 49 CFR 1.47(a).

2. By amending § 25.365, by revising paragraph (d), to read as follows:

#### § 25.365 Pressurized cabin loads.

\* \* \* \* \*

(d) The airplane structure must be designed to be able to withstand the pressure differential loads corresponding to the maximum relief valve setting multiplied by a factor of 1.33 for airplanes to be approved for operation to 45,000 feet or by a factor of 1.67 for airplanes to be approved for operation above 45,000 feet, omitting other loads.

\* \* \* \* \*

3. By amending § 25.831 by revising paragraphs (a), (c), and (d) and adding paragraph (g) to read as follows:

#### § 25.831 Ventilation.

(a) Under normal operating conditions and in the event of any probable failure or failure combinations of any system which would adversely affect the ventilating air, the ventilation system must be designed to provide a sufficient amount of uncontaminated air to enable the crewmembers to perform their duties without undue discomfort or fatigue and to provide reasonable passenger comfort. For normal operating conditions, each occupant must be provided with an airflow containing at least 0.6 pounds of fresh air per minute.

\* \* \* \* \*

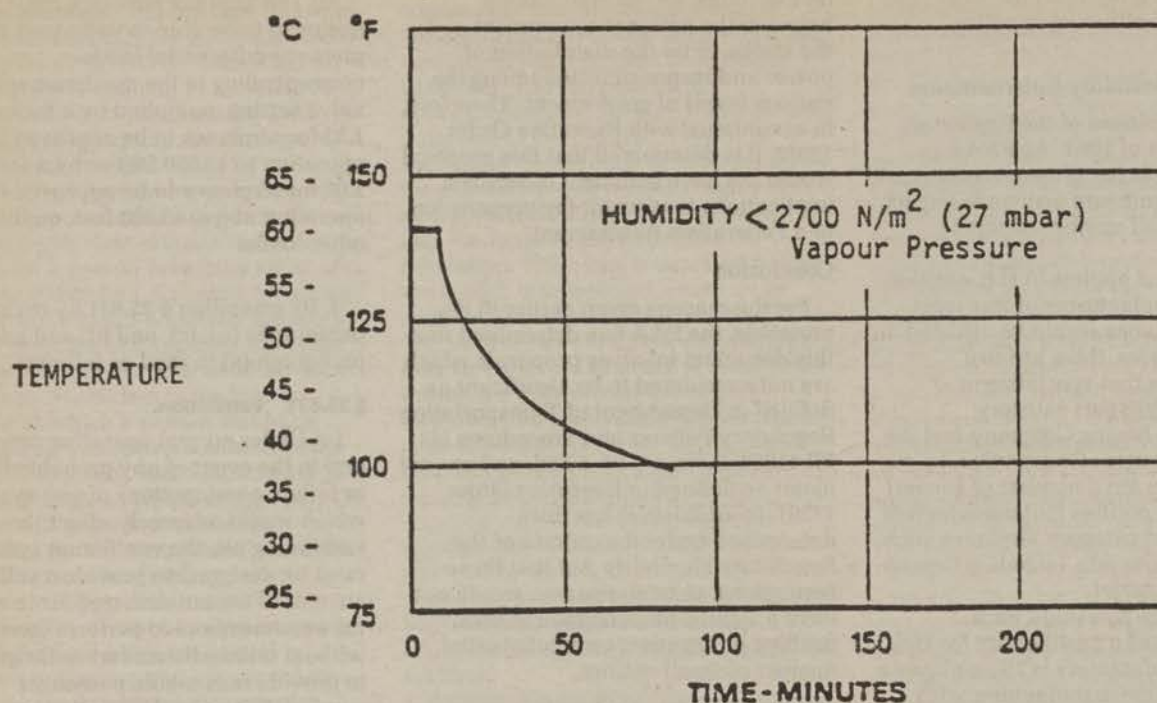
(c) There must be provisions in the design to ensure that the conditions prescribed in paragraph (b) of this section are met after any failures or failure combinations that are not extremely improbable.

(d) If the accumulation of hazardous quantities of smoke in the cockpit area is not extremely improbable, smoke evacuation must be readily accomplished starting with full pressurization and without depressurizing beyond safe limits.

\* \* \* \* \*

(g) The exposure time at any given temperature must not exceed the values shown in the following graph after any improbable failure or failure combinations.





TIME - TEMPERATURE RELATIONSHIP

4. By amending § 25.841, by revising paragraph (a), to read as follows:

**§ 25.841 Pressurized cabins.**

(a) Pressurized cabins and any other occupied compartments must be equipped to provide a cabin pressure altitude of not more than 8,000 feet at the maximum operating altitude of the airplane under normal operating conditions.

(1) If certification for operation above 25,000 feet is requested, the airplane must be designed so that occupants will not be exposed to cabin pressure altitudes in excess of 15,000 feet after any probable failure or failure combinations in the pressurization system.

(2) The airplane must be designed so that occupants will not be exposed to a cabin pressure altitude that exceeds the following after decompression from any failure or failure combinations not shown to be extremely improbable:

- (i) Twenty-five thousand (25,000) feet for more than 2 minutes; or
- (ii) Forty thousand (40,000) feet for any duration.

(3) Fuselage structure, engine and system failures are to be considered in evaluating the cabin decompression.

5. By amending § 25.1447, by revising paragraphs (c) (1)-(4) and adding (c)(5), to read as follows:

**§ 25.1447 Equipment standards for oxygen dispensing units.**

(c) \* \* \*

(1) There must be an oxygen dispensing unit connected to oxygen supply terminals immediately available to each occupant, wherever seated, and at least two oxygen dispensing units connected to oxygen terminals in each lavatory. The total number of dispensing units and outlets in the cabin must exceed the number of seats by at least 10 percent. The extra units must be as uniformly distributed throughout the cabin as practicable. If certification for operation above 30,000 feet is requested, the dispensing units providing the required oxygen flow must be automatically presented to the occupants before the cabin pressure altitude exceeds 15,000 feet. The crew must be provided with a manual means of making the dispensing units

immediately available in the event of failure of the automatic system.

(2) Each flight crewmember on flight deck duty must be provided with a quick-donning type oxygen dispensing unit connected to an oxygen supply terminal. This dispensing unit must be immediately available to the flight crewmember when seated at his station, and installed so that it:

(i) Can be placed on the face from its ready position, properly secured, sealed, and supplying oxygen upon demand, with one hand, within five seconds and without disturbing eyeglasses or causing delay in proceeding with emergency duties; and

(ii) Allows, while in place, the performance of normal communication functions.

(3) The oxygen dispensing equipment for the flight crewmembers must be:

(i) The diluter demand or pressure demand (pressure demand mask with a diluter demand pressure breathing regulator) type for airplanes to be operated above 25,000 feet.

(ii) The pressure demand (pressure demand mask with a diluter demand pressure breathing regulator) type with mask-mounted regulator for airplanes operated at altitudes where



decompressions that are not extremely improbable may expose the flightcrew to cabin pressure altitudes in excess of 34,000 feet.

(4) The flight manual must contain a limitation that requires at least one flight crewmember to use 100 percent

oxygen at airplane operational altitudes at which the cabin altitude could exceed 34,000 feet after pressurization failures that are not extremely improbable.

(5) Portable oxygen equipment must be immediately available for each cabin attendant.

Issued in Washington, DC, on November 14, 1989.

**William J. Sullivan,**

*Acting Director, Aircraft  
Certification Service.*

[FR Doc. 89-27280 Filed 11-21-89; 8:45 am]

BILLING CODE 4910-13-M



**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****Proposed Advisory Circular 25-XX,  
High Altitude Subsonic Flight**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of availability of proposed Advisory Circular (AC) 25-XX, and request for comments.

**SUMMARY:** This notice announces the availability of and requests comments on a proposed advisory circular (AC). The AC provides guidance on acceptable means, but not the only means, of demonstrating compliance with the requirements being proposed in a separate notice pertaining to type certification of transport category airplanes for operation up to 51,000 feet. This notice provides interested persons an opportunity to present their views on the proposed AC.

**DATES:** Comments must be received on or before March 21, 1990.

**ADDRESSES:** Send all comments on the proposed advisory circular to: Federal Aviation Administration, Attention: Transport Standards Staff (ANM-110), Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168. Comments may be inspected at the above address between 7:30 a.m. and 4:00 p.m. weekdays, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Ms. Jan Thor, Transport Standards Staff, at the above address, telephone (206) 431-2127.

**SUPPLEMENTARY INFORMATION:****Comments Invited**

A copy of the draft AC may be obtained by contacting the person named above under "FOR FURTHER INFORMATION CONTACT." Interested persons are invited to comment on the proposed AC by submitting such written data, views, or arguments as they may

desire. Communications should identify AC 25-XX and be submitted, in duplicate, to the address specified above. All communications received on or before the closing date for comments will be considered by the Transport Standards Staff before issuing the final AC.

**Discussion**

As a result of the changes to part 25 proposed in Notice No. 89-31, additional material is being published in this non-regulatory advisory circular form as a possible, but not required, means of compliance. Issuance of this AC is contingent on final adoption of the proposed changes to part 25.

Issued in Seattle, Washington, on November 3, 1989.

**Leroy A. Keith,**

*Manager, Transport Airplane Directorate,  
Aircraft Certification Service, ANM-100.*

[FR Doc. 89-27281 Filed 11-21-89; 8:45 am]

**BILLING CODE 4910-13-M**



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**Wednesday  
November 22, 1989**

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**Part V**

**Housing and Urban  
Development**

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**Office of the Assistant Secretary for  
Housing-Federal Housing Commissioner**

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**24 CFR Part 888**

**Section 8 Housing Assistance Payments  
Program—Contract Rent Annual  
Adjustment Factors; Rule**



# DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Housing-Federal Housing Commissioner

## 24 CFR Part 888

[Docket No. N-89-2049; FR-2688-N-1]

### Section 8 Housing Assistance Payments Program—Contract Rent Annual Adjustment Factors

**AGENCY:** Office of the Assistant Secretary for Housing-Federal Housing Commissioner, HUD.

**ACTION:** Notice of Revised Contract Rent Annual Adjustment Factors.

**SUMMARY:** The United States Housing Act of 1937 (1937 Act) requires that the assistance contracts signed by owners participating in the Department's section 8 Housing Assistance Payments Programs provide for annual or more frequent adjustment in the maximum monthly rentals for units covered by the contract to reflect changes based on fair market rents prevailing in a particular market area, or on a reasonable formula. This Notice announces revised Annual Adjustment Factors, which are based on a formula using rent and utility data from the Consumer Price Index and using the Bureau of the Census American Housing Surveys. The revised Factors are to be used to adjust contract rents in the section 8 Housing Assistance Payment Programs.

**EFFECTIVE DATE:** November 22, 1989.

**FOR FURTHER INFORMATION CONTACT:** Shirley C. Stone, Existing Housing Division, Office of Elderly and Assisted Housing (202) 755-6887; James Tahash, Program Planning Division, Office of Multifamily Housing Management (202) 426-3970; for technical information regarding the development of the schedules for specific areas or the method used for calculating the Adjustment Factors, Michael R. Allard, Economic and Market Analysis Division, Office of Policy Development and Research (202) 755-5577. Mailing address for above persons: Department of Housing and Urban Development, 451 Seventh Street SW., Washington, DC 20410. (These are not toll-free numbers).

**SUPPLEMENTARY INFORMATION:** Section 8(c)(2)(A) of the United States Housing Act of 1937 (42 U.S.C. 1437f(c)(2)(A)) requires the Department to provide for adjustments in the maximum monthly rents for units covered by the section 8 Housing Assistance Payments (HAP) Contracts. Adjustments must reflect changes in the fair market rents (FMRs)

prevailing in particular market areas or be based on a reasonable formula.

This Notice establishes revised Annual Adjustment Factors (AAFs) based on a formula using rent and utility data from the Consumer Price Index (CPI) and using the Bureau of the Census American Housing Surveys (AHS). The revised AAFs are to be used to adjust Contract Rents under the section 8 Housing Assistance Payments Programs. HUD regulations provide that the AAFs will be published annually in the *Federal Register* (24 CFR 888.202). The annual anniversary date for publication of the AAFs is November 8. These revised AAFs apply (subject to the limitations on applicability discussed below) to adjust Contract Rents on or after November 8, 1989.

#### Applicability of AAFs to Various Section 8 Programs

In general, AAFs established by this Notice are used to adjust Contract Rents for section 8 units. The following provides a general description of how AAFs apply under the several section 8 Housing Assistance Payments Programs. The application of the AAFs should be determined by reference to the HAP Contract and to appropriate program regulations.

In certain cases, AAFs are not used to adjust Contract Rents. AAFs are not used for section 8 Certificate Program units under a HAP contract for subsidized units subject to 24 CFR 882.110(d), which applies to units in certain otherwise subsidized projects that are rented to section 8 Certificate Program families. (The housing assistance payment for such a unit is equal to the difference between the subsidized rent and the rent payable by the eligible family. Adjustments to the subsidized rents are made in accordance with rules and procedures governing the particular subsidized housing program involved.) In addition, AAFs are not used for units placed under HAP contract in recent years under the section 202/section 8 Program. Instead, rents are based on a HUD-approved budget for the project.

Contract Rents for many projects receiving section 8 subsidies under the Loan Management provisions of 24 CFR part 886, subpart A, and for projects receiving section 8 subsidies under the Property Disposition provisions of 24 CFR part 886, subpart C, are adjusted, at HUD's option, either by applying the AAFs or by adjusting rents in accordance with 24 CFR 207.19 (e)(2) and (e)(4).

The AAFs developed by the formula apply to rental units of all bedroom sizes in each rent interval. Under the

section 8 Moderate Rehabilitation Program, the public housing agency (PHA) should use the base rent, not the Contract Rent, to select the correct AAF to apply to the base rent.

Each AAF applies to a specified geographical area, as indicated in the Table at the end of this document. Program participants should refer to the Table that provides the list of states included in each of the four Census Regions and the metropolitan areas with separate local CPI surveys (defined by counties or New England towns) to make certain that they are using the correct factors. Units located in metropolitan areas with separate local CPI surveys must use the corresponding AAFs for that metropolitan area. Units that are located outside those metropolitan areas with separate local CPI surveys must use the AAFs for the respective Census Region within which the state is located.

Application of an AAF to the prior Contract Rent for a unit may not result in material differences between the rents charged for assisted units and unassisted units of similar quality and age in the same market area, as determined by the Secretary. (See 42 U.S.C. 1437f(c)(2)(C), and the applicable program regulations in 24 CFR chapter VIII.) Thus, an AAF for an entire primary metropolitan statistical area (PMSA) may not be uniformly applicable to all rental housing within that broad area, if a project-specific rent comparability test shows that a material difference exists between the rents charged for assisted projects and unassisted projects of similar quality and age in the same market area.

In certain cases, however, the AAF established for a particular area may result in rents that are substantially lower than rents charged for comparable units not receiving assistance under the section 8 Program. If this occurs, a PHA or private owner may apply to the HUD Field Office for consideration of a revised AAF for the area, as provided in 24 CFR 888.204.

Owners of section 8 units (other than units assisted under the section 8 Certificate and FmHA Programs) who have HAP Contracts with anniversary dates falling on November 8, 1989 through November 22, 1989 may request that the AAFs be applied retroactively to the anniversary date of their HAP Contracts. Retroactivity is permitted to avoid any detriment to owners because of HUD's delay in the annual publication of the factors as required by 24 CFR 888.202. For units assisted under the section 8 Certificate and the FmHA Programs, the factors are not applied



retroactively; the annual adjustments, as of any anniversary date, are determined using the AAFs most recently published in the *Federal Register* (see 24 CFR 882.108(a)(1) and 884.109(b)(2)).

#### Calculation of Adjustment Factors

AAFs are provided for the four Census Regions, the states of Alaska and Hawaii, and the 72 metropolitan areas with local CPI surveys (listed in alphabetical order).

As a result of decreases in the local CPI surveys, the Department is publishing AAFs that are less than 1.00 for two metropolitan areas in Colorado and five metropolitan areas in Texas. These areas are: the Denver PMSA; the Boulder PMSA; the Houston PMSA; the Brazoria PMSA, the Galveston-Texas City PMSA; the Dallas PMSA; and the Fort Worth-Arlington PMSA. The AAFs for the state of Alaska, also less than 1.00, are based on a reduction in the Anchorage CPI.

AAFs that are less than 1.00 normally would result in rent reductions. However, section 8(c)(2)(C) of the 1937 Act, as amended by section 142(d) of the Housing and Community Development Act of 1987, prohibits the reduction of contract rents for newly constructed, substantially rehabilitated, or moderately rehabilitated projects (including projects assisted under section 8 as in effect prior to November 30, 1983), unless the project has been refinanced in a manner that reduces the periodic payments of the owner. Therefore, contract rents for newly constructed, substantially rehabilitated or moderately rehabilitated projects (including projects assisted under section 8 as in effect prior to November 30, 1983) in areas with factors of less than 1.00 will not be reduced as a result of such factors.

Except for rent adjustments for manufactured home space rents under

the section 8 Certificate Program, the formula for calculating the AAFs for each area was developed as follows: (1) The increases in the residential rent component and the fuel and utilities component of the CPI were based on the most recent available average annual changes; (2) a shelter rent factor was calculated by eliminating the effect of heating costs on the CPI residential rent component as determined by Bureau of Labor Statistics data; (3) a gross rent factor for each of the metropolitan areas covered by the CPI and for each of the four Census Regions was calculated by weighting the shelter rent and the fuel and utility changes in accordance with updated 1980 Census State weights of these component parts of rent; (4) AAFs for Contract Rents including the highest cost utility were calculated by adjusting the gross rent factors to reflect variations by rent range in each area, based on variations developed from 1987 national AHS data as applied to the local FMR levels; and (5) AAFs for Contract Rents excluding the highest cost utility were calculated by developing updated shelter rents from the updated gross rents, by rent ranges, and then dividing the updated shelter rents by that of the previous year.

#### Section 8 Certificate Program AAFs for Manufactured Home Spaces

This Notice contains a separate set of AAFs for adjusting Contract Rents for manufactured home spaces. There is one factor for each area, which represents the change in the median rent for the area. These factors were derived by following steps one and two in the formula described above.

#### Other Matters

An environmental assessment is unnecessary, since revising Annual

Adjustment Factors is categorically excluded from the Department's National Environmental Policy Act procedures under 24 CFR 50.20(7).

The General Counsel, as the Designated Official under section 6(a) of Executive Order 12612, *Federalism*, has determined that the policies contained in this Notice do not have federalism implications and, thus, are not subject to review under the Order. The Notice merely announces the adjustment factors to be used to adjust contract rents in the section 8 Housing Assistance Payment Programs, as required by the United States Housing Act of 1937.

The General Counsel, as the Designated Official under Executive Order 12606, *The Family*, has also determined that this Notice does not have potential significant impact on family formation, maintenance, and general well-being and, thus, is not subject to review under the Order. The Notice merely announces the adjustment factors to be used to adjust contract rents in the section 8 Housing Assistance Payment Programs, as required by the United States Housing Act of 1937.

The Catalog of Federal Domestic Assistance program number for Lower Income Housing Assistance Programs (section 8) is 14.156.

Accordingly, the Department publishes these Contract Rent Annual Adjustment Factors for the section 8 Housing Assistance Payments Program as set forth in the following tables:

Dated: November 13, 1989.

Peter H. Monroe,

Acting General Deputy Assistant Secretary  
for Housing—Federal Housing Commissioner.

BILLING CODE 4210-27-M



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - BY RENT RANGE PREPARED ON 100289

NORTH EAST CENSUS REGION			MIDWEST CENSUS REGION			SOUTH CENSUS REGION		
HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED	
UNDER \$ 280	1.076	1.092	UNDER \$ 230	1.044	1.052	UNDER \$ 220	1.035	1.035
\$ 280 TO 339	1.072	1.084	\$ 230 TO 269	1.042	1.052	\$ 220 TO 259	1.033	1.033
\$ 340 TO 399	1.068	1.078	\$ 270 TO 319	1.039	1.044	\$ 260 TO 299	1.031	1.029
\$ 400 TO 449	1.064	1.073	\$ 320 TO 359	1.037	1.038	\$ 300 TO 349	1.029	1.022
\$ 450 TO 509	1.060	1.060	\$ 360 TO 409	1.035	1.031	\$ 350 TO 389	1.027	1.022
\$ 510 TO 569	1.055	1.050	\$ 410 TO 449	1.032	1.030	\$ 390 TO 429	1.025	1.015
\$ 570 TO 679	1.047	1.038	\$ 450 TO 539	1.027	1.024	\$ 430 TO 519	1.022	1.011
\$ 680 TO 799	1.039	1.028	\$ 540 TO 629	1.022	1.017	\$ 520 TO 609	1.018	1.005
\$ 800 TO 909	1.030	1.028	\$ 630 TO 719	1.018	1.016	\$ 610 TO 689	1.014	1.005
\$ 910 PLUS	1.022	1.028	\$ 720 PLUS	1.013	1.016	\$ 690 PLUS	1.010	1.005
WEST CENSUS REGION			STATE ALASKA			STATE HAWAII		
HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED	
UNDER \$ 300	1.052	1.053	UNDER \$ 230	.951	.921	UNDER \$ 320	1.075	1.083
\$ 300 TO 369	1.049	1.051	\$ 230 TO 269	.951	.921	\$ 320 TO 379	1.071	1.077
\$ 370 TO 429	1.046	1.047	\$ 270 TO 319	.951	.921	\$ 380 TO 449	1.067	1.075
\$ 430 TO 489	1.043	1.041	\$ 320 TO 359	.951	.921	\$ 450 TO 509	1.062	1.071
\$ 490 TO 549	1.040	1.033	\$ 360 TO 409	.951	.921	\$ 510 TO 569	1.058	1.065
\$ 550 TO 609	1.038	1.033	\$ 410 TO 449	.951	.921	\$ 570 TO 639	1.054	1.056
\$ 610 TO 729	1.032	1.027	\$ 450 TO 539	.951	.921	\$ 640 TO 759	1.046	1.046
\$ 730 TO 849	1.026	1.019	\$ 540 TO 629	.951	.921	\$ 760 TO 889	1.038	1.038
\$ 850 TO 969	1.021	1.012	\$ 630 TO 719	.951	.921	\$ 890 TO 1019	1.030	1.027
\$ 970 PLUS	1.015	1.012	\$ 720 PLUS	.951	.921	\$ 1020 PLUS	1.022	1.027
PMSA AKRON, OH			PMSA ANAHEIM-SANTA ANA, CA			PMSA ANN ARBOR, MI		
HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED	
UNDER \$ 220	1.046	1.050	UNDER \$ 410	1.070	1.073	UNDER \$ 290	1.029	1.046
\$ 220 TO 259	1.043	1.046	\$ 410 TO 489	1.066	1.069	\$ 290 TO 349	1.027	1.044
\$ 260 TO 309	1.041	1.042	\$ 490 TO 569	1.062	1.064	\$ 350 TO 409	1.026	1.039
\$ 310 TO 349	1.038	1.036	\$ 570 TO 649	1.059	1.056	\$ 410 TO 469	1.024	1.034
\$ 350 TO 399	1.036	1.029	\$ 650 TO 729	1.055	1.045	\$ 470 TO 529	1.023	1.030
\$ 400 TO 439	1.033	1.029	\$ 730 TO 809	1.051	1.045	\$ 530 TO 589	1.021	1.030
\$ 440 TO 529	1.028	1.014	\$ 810 TO 969	1.043	1.037	\$ 590 TO 699	1.018	1.025
\$ 530 TO 619	1.023	1.014	\$ 970 TO 1129	1.036	1.028	\$ 700 TO 819	1.015	1.021
\$ 620 TO 699	1.018	1.014	\$ 1130 TO 1299	1.028	1.018	\$ 820 TO 939	1.012	1.020
\$ 700 PLUS	1.013	1.014	\$ 1300 PLUS	1.020	1.018	\$ 940 PLUS	1.008	1.020
MSA ATLANTA, GA			PMSA AURORA-ELGIN, IL			MSA BALTIMORE, MD		
HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED		HIGHEST COST INCLUDED	UTILITY EXCLUDED	
UNDER \$ 270	1.032	1.041	UNDER \$ 310	1.059	1.086	UNDER \$ 270	1.058	1.073
\$ 270 TO 319	1.030	1.037	\$ 310 TO 369	1.056	1.079	\$ 270 TO 319	1.055	1.064
\$ 320 TO 379	1.029	1.037	\$ 370 TO 429	1.053	1.075	\$ 320 TO 369	1.052	1.061
\$ 380 TO 429	1.027	1.030	\$ 430 TO 489	1.050	1.063	\$ 370 TO 429	1.048	1.057
\$ 430 TO 489	1.025	1.030	\$ 490 TO 549	1.046	1.056	\$ 430 TO 479	1.045	1.048
\$ 490 TO 539	1.023	1.025	\$ 550 TO 609	1.043	1.055	\$ 480 TO 529	1.042	1.042
\$ 540 TO 649	1.020	1.022	\$ 610 TO 739	1.037	1.037	\$ 530 TO 639	1.036	1.032
\$ 650 TO 759	1.016	1.016	\$ 740 TO 859	1.030	1.036	\$ 640 TO 749	1.029	1.023
\$ 760 TO 859	1.013	1.016	\$ 860 TO 979	1.024	1.036	\$ 750 TO 849	1.023	1.023
\$ 860 PLUS	1.009	1.016	\$ 980 PLUS	1.017	1.036	\$ 850 PLUS	1.017	1.023



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - BY RENT RANGE PREPARED ON 100289

PMSA BEAVER COUNTY, PA			PMSA BERGEN-PASSAIC, NJ			PMSA BOSTON, MA		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 220	1.021	1.030	UNDER \$ 390	1.075	1.091	UNDER \$ 410	1.081	1.097
\$ 220 TO 259	1.020	1.025	\$ 390 TO 469	1.071	1.084	\$ 410 TO 489	1.076	1.084
\$ 260 TO 309	1.019	1.025	\$ 470 TO 549	1.067	1.075	\$ 490 TO 569	1.072	1.079
\$ 310 TO 349	1.018	1.021	\$ 550 TO 619	1.062	1.068	\$ 570 TO 649	1.068	1.074
\$ 350 TO 389	1.017	1.016	\$ 620 TO 699	1.058	1.061	\$ 650 TO 729	1.063	1.062
\$ 390 TO 439	1.015	1.016	\$ 700 TO 779	1.054	1.050	\$ 730 TO 809	1.059	1.049
\$ 440 TO 519	1.013	1.010	\$ 780 TO 929	1.046	1.049	\$ 810 TO 969	1.050	1.038
\$ 520 TO 609	1.011	1.010	\$ 930 TO 1089	1.038	1.029	\$ 970 TO 1139	1.041	1.027
\$ 610 TO 699	1.008	1.009	\$ 1090 TO 1249	1.030	1.028	\$ 1140 TO 1299	1.032	1.027
\$ 700 PLUS	1.006	1.009	\$ 1250 PLUS	1.022	1.028	\$ 1300 PLUS	1.023	1.027
PMSA BOULDER-LONGMONT, CO			PMSA BRAZORIA, TX			PMSA BRIDGEPORT-MILFORD, CT		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 220	.986	.982	UNDER \$ 390	.993	.981	UNDER \$ 310	1.072	1.089
\$ 220 TO 259	.986	.982	\$ 390 TO 469	.993	.981	\$ 310 TO 369	1.068	1.082
\$ 260 TO 309	.986	.982	\$ 470 TO 549	.993	.981	\$ 370 TO 429	1.064	1.077
\$ 310 TO 349	.986	.982	\$ 550 TO 619	.993	.981	\$ 430 TO 489	1.060	1.061
\$ 350 TO 389	.986	.982	\$ 620 TO 699	.993	.981	\$ 490 TO 559	1.056	1.061
\$ 390 TO 439	.986	.982	\$ 700 TO 779	.993	.981	\$ 560 TO 619	1.052	1.053
\$ 440 TO 519	.986	.982	\$ 780 TO 929	.993	.981	\$ 620 TO 739	1.044	1.041
\$ 520 TO 609	.986	.982	\$ 930 TO 1089	.993	.981	\$ 740 TO 859	1.036	1.030
\$ 610 TO 699	.986	.982	\$ 1090 TO 1249	.993	.981	\$ 860 TO 989	1.028	1.029
\$ 700 PLUS	.986	.982	\$ 1250 PLUS	.993	.981	\$ 990 PLUS	1.021	1.029
PMSA BROCKTON, MA			PMSA BUFFALO, NY			PMSA CHICAGO, IL		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 320	1.081	1.097	UNDER \$ 220	1.079	1.080	UNDER \$ 300	1.066	1.089
\$ 320 TO 379	1.076	1.086	\$ 220 TO 259	1.075	1.075	\$ 300 TO 359	1.062	1.082
\$ 380 TO 449	1.072	1.077	\$ 260 TO 299	1.071	1.071	\$ 360 TO 419	1.058	1.074
\$ 450 TO 509	1.068	1.073	\$ 300 TO 349	1.066	1.052	\$ 420 TO 479	1.055	1.062
\$ 510 TO 579	1.063	1.062	\$ 350 TO 389	1.062	1.051	\$ 480 TO 539	1.051	1.061
\$ 580 TO 639	1.059	1.051	\$ 390 TO 429	1.058	1.041	\$ 540 TO 599	1.048	1.053
\$ 640 TO 769	1.050	1.040	\$ 430 TO 519	1.049	1.029	\$ 600 TO 719	1.040	1.044
\$ 770 TO 859	1.041	1.028	\$ 520 TO 599	1.040	1.018	\$ 720 TO 839	1.033	1.033
\$ 900 TO 1029	1.032	1.028	\$ 600 TO 689	1.032	1.017	\$ 840 TO 959	1.026	1.032
\$ 1030 PLUS	1.023	1.028	\$ 690 PLUS	1.023	1.017	\$ 960 PLUS	1.019	1.032
PMSA CINCINNATI, OH-KY-IN			PMSA CLEVELAND, OH			PMSA DALLAS, TX		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 200	1.059	1.078	UNDER \$ 230	1.046	1.052	UNDER \$ 300	.989	.974
\$ 200 TO 239	1.056	1.077	\$ 230 TO 269	1.043	1.052	\$ 300 TO 359	.989	.974
\$ 240 TO 279	1.053	1.069	\$ 270 TO 319	1.041	1.044	\$ 360 TO 419	.989	.974
\$ 280 TO 319	1.050	1.057	\$ 320 TO 369	1.038	1.038	\$ 420 TO 479	.989	.974
\$ 320 TO 359	1.046	1.047	\$ 370 TO 409	1.036	1.028	\$ 480 TO 539	.989	.974
\$ 360 TO 399	1.043	1.047	\$ 410 TO 459	1.033	1.028	\$ 540 TO 599	.989	.974
\$ 400 TO 479	1.037	1.041	\$ 460 TO 549	1.028	1.014	\$ 600 TO 719	.989	.974
\$ 480 TO 559	1.030	1.029	\$ 550 TO 639	1.023	1.013	\$ 720 TO 839	.989	.974
\$ 560 TO 639	1.024	1.029	\$ 640 TO 729	1.018	1.013	\$ 840 TO 959	.989	.974
\$ 640 PLUS	1.017	1.029	\$ 730 PLUS	1.013	1.013	\$ 960 PLUS	.989	.974



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - BY RENT RANGE PREPARED ON 100289

PMSA DANBURY, CT			PMSA DENVER, CO			PMSA DETROIT, MI		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 330	1.072	1.095	UNDER \$ 230	.986	.982	UNDER \$ 270	1.029	1.049
\$ 330 TO 399	1.068	1.082	\$ 230 TO 269	.986	.982	\$ 270 TO 319	1.027	1.044
\$ 400 TO 469	1.064	1.076	\$ 270 TO 319	.986	.982	\$ 320 TO 369	1.026	1.041
\$ 470 TO 539	1.060	1.063	\$ 320 TO 369	.986	.982	\$ 370 TO 429	1.024	1.035
\$ 540 TO 599	1.056	1.063	\$ 370 TO 409	.986	.982	\$ 430 TO 479	1.023	1.031
\$ 600 TO 669	1.052	1.052	\$ 410 TO 459	.986	.982	\$ 480 TO 529	1.021	1.030
\$ 670 TO 799	1.044	1.041	\$ 460 TO 549	.986	.982	\$ 530 TO 639	1.018	1.026
\$ 800 TO 939	1.036	1.030	\$ 550 TO 639	.986	.982	\$ 640 TO 749	1.015	1.022
\$ 940 TO 1069	1.028	1.030	\$ 640 TO 729	.986	.982	\$ 750 TO 849	1.012	1.021
\$ 1070 PLUS	1.021	1.030	\$ 730 PLUS	.986	.982	\$ 850 PLUS	1.008	1.021
PMSA FORT LAUDERDALE-HOLLYWOOD-POMPANO BEAC			PMSA FORT WORTH-ARLINGTON, TX			PMSA GALVESTON-TEXAS CITY, TX		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 280	1.047	1.052	UNDER \$ 230	.989	.974	UNDER \$ 270	.993	.981
\$ 280 TO 339	1.045	1.045	\$ 230 TO 269	.989	.974	\$ 270 TO 319	.993	.981
\$ 340 TO 389	1.042	1.038	\$ 270 TO 319	.989	.974	\$ 320 TO 369	.993	.981
\$ 390 TO 449	1.039	1.038	\$ 320 TO 369	.989	.974	\$ 370 TO 429	.993	.981
\$ 450 TO 509	1.037	1.031	\$ 370 TO 409	.989	.974	\$ 430 TO 479	.993	.981
\$ 510 TO 559	1.034	1.030	\$ 410 TO 459	.989	.974	\$ 480 TO 529	.993	.981
\$ 560 TO 679	1.029	1.024	\$ 460 TO 549	.989	.974	\$ 530 TO 639	.993	.981
\$ 680 TO 789	1.024	1.011	\$ 550 TO 639	.989	.974	\$ 640 TO 749	.993	.981
\$ 790 TO 899	1.019	1.011	\$ 640 TO 729	.989	.974	\$ 750 TO 849	.993	.981
\$ 900 PLUS	1.014	1.011	\$ 730 PLUS	.989	.974	\$ 850 PLUS	.993	.981
PMSA GARY-HAMMOND, IN			PMSA HAMILTON-MIDDLETOWN, OH			PMSA HOUSTON, TX		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 240	1.059	1.088	UNDER \$ 220	1.059	1.082	UNDER \$ 270	.993	.981
\$ 240 TO 289	1.056	1.079	\$ 220 TO 269	1.056	1.078	\$ 270 TO 319	.993	.981
\$ 290 TO 339	1.053	1.076	\$ 270 TO 309	1.053	1.069	\$ 320 TO 369	.993	.981
\$ 340 TO 389	1.050	1.063	\$ 310 TO 359	1.050	1.057	\$ 370 TO 429	.993	.981
\$ 390 TO 439	1.046	1.055	\$ 360 TO 399	1.046	1.050	\$ 430 TO 479	.993	.981
\$ 440 TO 489	1.043	1.045	\$ 400 TO 449	1.043	1.049	\$ 480 TO 529	.993	.981
\$ 490 TO 589	1.037	1.035	\$ 450 TO 539	1.037	1.038	\$ 530 TO 639	.993	.981
\$ 590 TO 679	1.030	1.035	\$ 540 TO 629	1.030	1.031	\$ 640 TO 749	.993	.981
\$ 680 TO 779	1.024	1.035	\$ 630 TO 719	1.024	1.030	\$ 750 TO 849	.993	.981
\$ 780 PLUS	1.017	1.035	\$ 720 PLUS	1.017	1.030	\$ 850 PLUS	.993	.981
PMSA JERSEY CITY, NJ			PMSA JOLIET, IL			PMSA KANSAS CITY, MO-KS		
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED		
UNDER \$ 270	1.075	1.094	UNDER \$ 310	1.066	1.089	UNDER \$ 220	1.030	1.036
\$ 270 TO 319	1.071	1.081	\$ 310 TO 369	1.062	1.082	\$ 220 TO 269	1.029	1.033
\$ 320 TO 369	1.067	1.075	\$ 370 TO 429	1.058	1.077	\$ 270 TO 309	1.027	1.028
\$ 370 TO 429	1.062	1.070	\$ 430 TO 489	1.055	1.063	\$ 310 TO 359	1.025	1.028
\$ 430 TO 479	1.058	1.059	\$ 490 TO 549	1.051	1.063	\$ 360 TO 399	1.024	1.018
\$ 480 TO 539	1.054	1.049	\$ 550 TO 619	1.048	1.053	\$ 400 TO 449	1.022	1.018
\$ 540 TO 639	1.046	1.041	\$ 620 TO 739	1.040	1.043	\$ 450 TO 529	1.019	1.008
\$ 640 TO 749	1.038	1.030	\$ 740 TO 859	1.033	1.034	\$ 530 TO 619	1.015	1.008
\$ 750 TO 859	1.030	1.030	\$ 860 TO 979	1.026	1.034	\$ 620 TO 709	1.012	1.008
\$ 860 PLUS	1.022	1.030	\$ 980 PLUS	1.019	1.033	\$ 710 PLUS	1.009	1.008



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - BY RENT RANGE

PMSA KENOSHA, WI			PMSA LAKE COUNTY, IL			PMSA LAWRENCE-HAVERHILL, MA-NH			PMSA LOS ANGELES-LONG BEACH, CA			PMSA LOWELL, MA-NH			PMSA MILWAUKEE, WI			PMSA MIDDLESEX-SOMERSET-HUNTERDON, NJ			PMSA MINNEAPOLIS-ST. PAUL, MN-WI			PMSA MONMOUTH-OCEAN, NJ			PMSA NASHUA, NH					
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY EXCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED					
UNDER \$ 240			1.064			1.084			UNDER \$ 310			1.070			UNDER \$ 310			1.076			UNDER \$ 360			1.075			UNDER \$ 320			1.075		
\$ 240 TO 289			1.061			1.083			\$ 310 TO 379			1.066			\$ 350 TO 419			1.066			\$ 360 TO 429			1.071			\$ 320 TO 389			1.071		
\$ 290 TO 329			1.057			1.071			\$ 380 TO 439			1.058			\$ 420 TO 489			1.062			\$ 430 TO 499			1.067			\$ 390 TO 449			1.067		
\$ 330 TO 379			1.054			1.065			\$ 440 TO 499			1.055			\$ 490 TO 559			1.059			\$ 500 TO 569			1.062			\$ 450 TO 519			1.062		
\$ 380 TO 429			1.050			1.064			\$ 500 TO 559			1.051			\$ 560 TO 629			1.055			\$ 570 TO 639			1.058			\$ 520 TO 579			1.058		
\$ 430 TO 479			1.046			1.053			\$ 560 TO 629			1.048			\$ 630 TO 699			1.051			\$ 700 TO 769			1.046			\$ 580 TO 639			1.054		
\$ 480 TO 569			1.039			1.044			\$ 630 TO 749			1.040			\$ 700 TO 839			1.043			\$ 840 TO 979			1.036			\$ 640 TO 769			1.046		
\$ 570 TO 669			1.032			1.034			\$ 750 TO 879			1.033			\$ 840 TO 979			1.027			\$ 980 TO 1119			1.028			\$ 770 TO 899			1.038		
\$ 670 TO 759			1.025			1.034			\$ 880 TO 999			1.026			\$ 980 TO 1119			1.028			\$ 1120 PLUS			1.022			\$ 900 TO 1029			1.030		
\$ 760 PLUS			1.018			1.033			\$ 1000 PLUS			1.019			\$ 1120 PLUS			1.020			\$ 1150 PLUS			1.022			\$ 1030 PLUS			1.022		
PMSA LORAIN-ELYRIA, OH			PMSA LOS ANGELES-LONG BEACH, CA			PMSA LOWELL, MA-NH			PMSA LOS ANGELES-LONG BEACH, CA			PMSA LOWELL, MA-NH			PMSA MILWAUKEE, WI			PMSA MIDDLESEX-SOMERSET-HUNTERDON, NJ			PMSA MINNEAPOLIS-ST. PAUL, MN-WI			PMSA MONMOUTH-OCEAN, NJ			PMSA NASHUA, NH					
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY EXCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED					
UNDER \$ 220			1.046			1.050			UNDER \$ 350			1.070			UNDER \$ 310			1.076			UNDER \$ 360			1.075			UNDER \$ 320			1.075		
\$ 220 TO 259			1.043			1.046			\$ 350 TO 419			1.066			\$ 350 TO 419			1.066			\$ 360 TO 429			1.071			\$ 320 TO 389			1.071		
\$ 260 TO 299			1.041			1.043			\$ 420 TO 489			1.062			\$ 420 TO 489			1.062			\$ 430 TO 499			1.067			\$ 390 TO 449			1.067		
\$ 300 TO 349			1.038			1.037			\$ 490 TO 559			1.059			\$ 490 TO 559			1.055			\$ 500 TO 569			1.062			\$ 450 TO 519			1.062		
\$ 350 TO 389			1.036			1.030			\$ 560 TO 629			1.055			\$ 560 TO 629			1.047			\$ 570 TO 639			1.058			\$ 520 TO 579			1.058		
\$ 390 TO 429			1.033			1.027			\$ 630 TO 699			1.051			\$ 630 TO 699			1.047			\$ 700 TO 769			1.043			\$ 580 TO 639			1.054		
\$ 430 TO 519			1.028			1.015			\$ 700 TO 839			1.043			\$ 700 TO 839			1.038			\$ 840 TO 979			1.036			\$ 640 TO 769			1.046		
\$ 520 TO 609			1.023			1.014			\$ 840 TO 979			1.027			\$ 840 TO 979			1.027			\$ 980 TO 1119			1.028			\$ 770 TO 899			1.038		
\$ 610 TO 689			1.018			1.014			\$ 980 TO 1119			1.028			\$ 980 TO 1119			1.018			\$ 1120 PLUS			1.022			\$ 900 TO 1029			1.030		
\$ 690 PLUS			1.013			1.014			\$ 1120 PLUS			1.020			\$ 1120 PLUS			1.018			\$ 1150 PLUS			1.022			\$ 1030 PLUS			1.022		
PMSA MIAMI-HIALEAH, FL			PMSA MINNEAPOLIS-ST. PAUL, MN-WI			PMSA MONMOUTH-OCEAN, NJ			PMSA MIAMI-HIALEAH, FL			PMSA MINNEAPOLIS-ST. PAUL, MN-WI			PMSA MONMOUTH-OCEAN, NJ			PMSA NASHUA, NH			PMSA NASHUA, NH			PMSA NASHUA, NH			PMSA NASHUA, NH					
HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY EXCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED			HIGHEST COST UTILITY INCLUDED					
UNDER \$ 280			1.047			1.052			UNDER \$ 360			1.075			UNDER \$ 360			1.075			UNDER \$ 320			1.075			UNDER \$ 320			1.075		
\$ 280 TO 339			1.045			1.045			\$ 360 TO 429			1.071			\$ 360 TO 429			1.081			\$ 320 TO 389			1.082			\$ 320 TO 389			1.082		
\$ 340 TO 389			1.042			1.038			\$ 430 TO 499			1.067			\$ 430 TO 499			1.075			\$ 390 TO 449			1.076			\$ 390 TO 449			1.076		
\$ 390 TO 449			1.039			1.038			\$ 500 TO 569			1.071			\$ 500 TO 569			1.075			\$ 450 TO 519			1.070			\$ 450 TO 519			1.070		
\$ 450 TO 509			1.037			1.031			\$ 570 TO 649			1.062			\$ 570 TO 649			1.062			\$ 520 TO 579			1.060			\$ 520 TO 579			1.060		
\$ 510 TO 559			1.034			1.024			\$ 650 TO 719			1.054			\$ 650 TO 719			1.051			\$ 580 TO 639			1.051			\$ 580 TO 639			1.051		
\$ 560 TO 669			1.029			1.024			\$ 720 TO 859			1.046			\$ 720 TO 859			1.041			\$ 640 TO 769			1.040			\$ 640 TO 769			1.040		
\$ 670 TO 789			1.024			1.011			\$ 860 TO 999			1.038			\$ 860 TO 999			1.029			\$ 770 TO 899			1.038			\$ 770 TO 899			1.038		
\$ 790 TO 899			1.019			1.011			\$ 1000 TO 1149			1.030			\$ 1000 TO 1149			1.029			\$ 900 TO 1029			1.030			\$ 900 TO 1029			1.030		
\$ 900 PLUS			1.014			1.011			\$ 1150 PLUS			1.022			\$ 1150 PLUS			1.029			\$ 1030 PLUS			1.022			\$ 1030 PLUS			1.022		



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - BY RENT RANGE PREPARED ON 100289

PMSA NASSAU-SUFFOLK, NY				PMSA NEW YORK, NY				PMSA NEWARK, NJ			
HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED	
UNDER \$ 380		1.075		UNDER \$ 290		1.075		UNDER \$ 300		1.075	
\$ 380 TO 459	1.071	\$ 460 TO 529	1.086	\$ 290 TO 339	1.071	\$ 340 TO 399	1.086	\$ 300 TO 359	1.071	\$ 360 TO 419	1.082
\$ 460 TO 529	1.067	\$ 530 TO 609	1.068	\$ 340 TO 399	1.067	\$ 400 TO 459	1.076	\$ 360 TO 419	1.067	\$ 420 TO 479	1.077
\$ 530 TO 609	1.062	\$ 610 TO 689	1.058	\$ 400 TO 459	1.062	\$ 460 TO 519	1.058	\$ 420 TO 479	1.062	\$ 480 TO 539	1.061
\$ 610 TO 689	1.054	\$ 690 TO 759	1.054	\$ 460 TO 519	1.054	\$ 520 TO 569	1.054	\$ 480 TO 539	1.054	\$ 540 TO 599	1.049
\$ 690 TO 759	1.046	\$ 760 TO 909	1.049	\$ 520 TO 569	1.046	\$ 570 TO 689	1.049	\$ 540 TO 599	1.046	\$ 600 TO 719	1.041
\$ 760 TO 909	1.038	\$ 910 TO 1069	1.028	\$ 570 TO 689	1.038	\$ 690 TO 799	1.030	\$ 600 TO 719	1.038	\$ 720 TO 839	1.029
\$ 910 TO 1069	1.030	\$ 1070 TO 1219	1.028	\$ 690 TO 799	1.028	\$ 800 TO 919	1.029	\$ 720 TO 839	1.030	\$ 840 TO 959	1.029
\$ 1070 TO 1219	1.022	\$ 1220 PLUS	1.028	\$ 800 TO 919	1.022	\$ 920 PLUS	1.029	\$ 840 TO 959	1.022	\$ 960 PLUS	1.029
\$ 1220 PLUS	1.028			\$ 920 PLUS	1.029			\$ 960 PLUS	1.022		
PMSA NIAGARA FALLS, NY				PMSA NORWALK, CT				PMSA OAKLAND, CA			
HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED	
UNDER \$ 210		1.079		UNDER \$ 360		1.072		UNDER \$ 400		1.070	
\$ 210 TO 249	1.075	\$ 250 TO 289	1.071	\$ 360 TO 429	1.068	\$ 430 TO 499	1.064	\$ 400 TO 479	1.066	\$ 480 TO 559	1.061
\$ 250 TO 289	1.066	\$ 290 TO 329	1.052	\$ 430 TO 499	1.064	\$ 500 TO 569	1.060	\$ 480 TO 559	1.062	\$ 560 TO 639	1.053
\$ 290 TO 329	1.058	\$ 330 TO 369	1.051	\$ 500 TO 569	1.056	\$ 570 TO 639	1.052	\$ 560 TO 639	1.059	\$ 640 TO 719	1.040
\$ 330 TO 369	1.049	\$ 370 TO 409	1.038	\$ 570 TO 639	1.052	\$ 640 TO 709	1.044	\$ 640 TO 719	1.055	\$ 720 TO 799	1.038
\$ 370 TO 409	1.038	\$ 410 TO 499	1.029	\$ 640 TO 709	1.044	\$ 710 TO 849	1.036	\$ 720 TO 799	1.051	\$ 800 TO 959	1.030
\$ 410 TO 499	1.049	\$ 500 TO 579	1.017	\$ 710 TO 849	1.036	\$ 850 TO 989	1.028	\$ 800 TO 959	1.043	\$ 960 TO 1109	1.020
\$ 500 TO 579	1.040	\$ 580 TO 659	1.016	\$ 850 TO 989	1.028	\$ 990 TO 1139	1.021	\$ 960 TO 1109	1.036	\$ 1110 TO 1269	1.011
\$ 580 TO 659	1.032	\$ 660 PLUS	1.016	\$ 990 TO 1139	1.021	\$ 1140 PLUS	1.029	\$ 1110 TO 1269	1.028	\$ 1270 PLUS	1.011
\$ 660 PLUS	1.023			\$ 1140 PLUS	1.029			\$ 1270 PLUS	1.020		
PMSA ORANGE COUNTY, NY				PMSA OXNARD-VENTURA, CA				PMSA PHILADELPHIA, PA-NJ			
HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED	
UNDER \$ 280		1.075		UNDER \$ 350		1.070		UNDER \$ 260		1.073	
\$ 280 TO 339	1.071	\$ 340 TO 399	1.067	\$ 350 TO 419	1.066	\$ 420 TO 479	1.064	\$ 260 TO 319	1.069	\$ 320 TO 369	1.083
\$ 340 TO 399	1.062	\$ 400 TO 449	1.058	\$ 420 TO 479	1.059	\$ 480 TO 549	1.054	\$ 320 TO 369	1.065	\$ 370 TO 419	1.061
\$ 400 TO 449	1.058	\$ 450 TO 509	1.054	\$ 480 TO 549	1.055	\$ 550 TO 619	1.051	\$ 370 TO 419	1.061	\$ 420 TO 469	1.061
\$ 450 TO 509	1.046	\$ 510 TO 569	1.048	\$ 550 TO 619	1.051	\$ 620 TO 689	1.043	\$ 420 TO 469	1.057	\$ 470 TO 529	1.050
\$ 510 TO 569	1.038	\$ 570 TO 679	1.029	\$ 620 TO 689	1.043	\$ 690 TO 829	1.036	\$ 470 TO 529	1.045	\$ 530 TO 629	1.040
\$ 570 TO 679	1.030	\$ 680 TO 799	1.029	\$ 690 TO 829	1.036	\$ 830 TO 969	1.028	\$ 530 TO 629	1.037	\$ 630 TO 739	1.029
\$ 680 TO 799	1.022	\$ 800 TO 909	1.022	\$ 830 TO 969	1.028	\$ 970 TO 1109	1.018	\$ 630 TO 739	1.029	\$ 740 TO 839	1.029
\$ 800 TO 909	1.022	\$ 910 PLUS	1.029	\$ 970 TO 1109	1.018	\$ 1110 PLUS	1.016	\$ 740 TO 839	1.021	\$ 840 PLUS	1.029
\$ 910 PLUS	1.022			\$ 1110 PLUS	1.016			\$ 840 PLUS	1.021		
PMSA PITTSBURGH, PA				PMSA PORTLAND, OR				PMSA RACINE, WI			
HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED		HIGHEST COST UTILITY INCLUDED		HIGHEST COST UTILITY EXCLUDED	
UNDER \$ 230		1.021		UNDER \$ 240		1.055		UNDER \$ 220		1.050	
\$ 230 TO 279	1.020	\$ 280 TO 319	1.019	\$ 240 TO 289	1.052	\$ 290 TO 339	1.049	\$ 220 TO 269	1.048	\$ 270 TO 309	1.052
\$ 280 TO 319	1.018	\$ 320 TO 369	1.018	\$ 290 TO 339	1.046	\$ 340 TO 389	1.043	\$ 270 TO 309	1.045	\$ 310 TO 359	1.042
\$ 320 TO 369	1.017	\$ 370 TO 419	1.016	\$ 340 TO 389	1.043	\$ 390 TO 439	1.040	\$ 310 TO 359	1.042	\$ 360 TO 399	1.039
\$ 370 TO 419	1.015	\$ 420 TO 459	1.014	\$ 390 TO 439	1.040	\$ 440 TO 489	1.031	\$ 360 TO 399	1.037	\$ 400 TO 439	1.033
\$ 420 TO 459	1.013	\$ 460 TO 549	1.011	\$ 440 TO 489	1.034	\$ 490 TO 589	1.028	\$ 400 TO 439	1.031	\$ 440 TO 529	1.027
\$ 460 TO 549	1.008	\$ 550 TO 649	1.008	\$ 490 TO 589	1.022	\$ 590 TO 679	1.017	\$ 440 TO 529	1.026	\$ 530 TO 619	1.019
\$ 550 TO 649	1.006	\$ 650 TO 739	1.010	\$ 590 TO 679	1.017	\$ 680 TO 779	1.016	\$ 530 TO 619	1.020	\$ 620 TO 709	1.019
\$ 650 TO 739	1.006	\$ 740 PLUS	1.010	\$ 680 TO 779	1.016	\$ 780 PLUS	1.016	\$ 620 TO 709	1.015	\$ 710 PLUS	1.019
\$ 740 PLUS	1.006			\$ 780 PLUS	1.016			\$ 710 PLUS	1.015		







SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - BY RENT RANGE PREPARED ON 100289									
PMSA VALLEJO-FAIRFIELD-NAPA, CA					PMSA VINELAND-MILLVILLE-BRIDGETON, NJ				
HIGHEST COST UTILITY					HIGHEST COST UTILITY				
INCLUDED		EXCLUDED			INCLUDED		EXCLUDED		
UNDER \$		UNDER \$			UNDER \$		UNDER \$		
\$ 300 TO 359	1.070	\$ 300 TO 359	1.067		\$ 270 TO 319	1.076	\$ 270 TO 319	1.090	
\$ 360 TO 419	1.066	\$ 360 TO 419	1.061		\$ 320 TO 369	1.072	\$ 320 TO 369	1.085	
\$ 420 TO 479	1.062	\$ 420 TO 479	1.056		\$ 370 TO 429	1.068	\$ 370 TO 429	1.078	
\$ 480 TO 539	1.059	\$ 480 TO 539	1.053		\$ 430 TO 479	1.064	\$ 430 TO 479	1.072	
\$ 540 TO 599	1.055	\$ 540 TO 599	1.039		\$ 480 TO 539	1.060	\$ 480 TO 539	1.062	
\$ 600 TO 719	1.051	\$ 600 TO 719	1.039		\$ 540 TO 639	1.055	\$ 540 TO 639	1.051	
\$ 720 TO 839	1.043	\$ 720 TO 839	1.030		\$ 640 TO 749	1.047	\$ 640 TO 749	1.039	
\$ 840 TO 959	1.036	\$ 840 TO 959	1.021		\$ 750 TO 859	1.039	\$ 750 TO 859	1.029	
\$ 960 PLUS	1.028	\$ 960 PLUS	1.011		\$ 860 PLUS	1.030	\$ 860 PLUS	1.029	
	1.020		1.016			1.022		1.029	
PMSA VANCOUVER, WA					PMSA WILMINGTON, DE-NJ-MD				
HIGHEST COST UTILITY					HIGHEST COST UTILITY				
INCLUDED		EXCLUDED			INCLUDED		EXCLUDED		
UNDER \$		UNDER \$			UNDER \$		UNDER \$		
\$ 220 TO 259	1.055	\$ 220 TO 259	1.060		\$ 280 TO 339	1.070	\$ 280 TO 339	1.092	
\$ 260 TO 309	1.052	\$ 260 TO 309	1.058		\$ 340 TO 389	1.066	\$ 340 TO 389	1.081	
\$ 310 TO 349	1.049	\$ 310 TO 349	1.056		\$ 390 TO 449	1.062	\$ 390 TO 449	1.074	
\$ 350 TO 389	1.046	\$ 350 TO 389	1.048		\$ 450 TO 499	1.059	\$ 450 TO 499	1.064	
\$ 390 TO 439	1.043	\$ 390 TO 439	1.041		\$ 500 TO 559	1.055	\$ 500 TO 559	1.053	
\$ 440 TO 529	1.040	\$ 440 TO 529	1.041		\$ 560 TO 669	1.051	\$ 560 TO 669	1.042	
\$ 530 TO 609	1.034	\$ 530 TO 609	1.031		\$ 670 TO 779	1.043	\$ 670 TO 779	1.029	
\$ 610 TO 699	1.028	\$ 610 TO 699	1.025		\$ 780 TO 889	1.036	\$ 780 TO 889	1.029	
\$ 700 PLUS	1.022	\$ 700 PLUS	1.017		\$ 890 PLUS	1.028	\$ 890 PLUS	1.029	
	1.016		1.017			1.020		1.029	
COUNTY WESTCHESTER, NY					PMSA WASHINGTON, DC-MD-VA				
HIGHEST COST UTILITY					HIGHEST COST UTILITY				
INCLUDED		EXCLUDED			INCLUDED		EXCLUDED		
UNDER \$		UNDER \$			UNDER \$		UNDER \$		
\$ 340 TO 409	1.075	\$ 340 TO 409	1.092		\$ 340 TO 409	1.099	\$ 340 TO 409	1.092	
\$ 410 TO 479	1.071	\$ 410 TO 479	1.085		\$ 410 TO 479	1.094	\$ 410 TO 479	1.081	
\$ 480 TO 549	1.067	\$ 480 TO 549	1.074		\$ 480 TO 549	1.088	\$ 480 TO 549	1.074	
\$ 550 TO 609	1.062	\$ 550 TO 609	1.070		\$ 550 TO 619	1.083	\$ 550 TO 619	1.064	
\$ 610 TO 679	1.058	\$ 610 TO 679	1.059		\$ 620 TO 689	1.077	\$ 620 TO 689	1.053	
\$ 680 TO 819	1.054	\$ 680 TO 819	1.059		\$ 690 TO 819	1.072	\$ 690 TO 819	1.053	
\$ 820 TO 959	1.046	\$ 820 TO 959	1.049		\$ 820 TO 959	1.061	\$ 820 TO 959	1.042	
\$ 960 TO 1089	1.038	\$ 960 TO 1089	1.029		\$ 960 TO 1099	1.050	\$ 960 TO 1099	1.029	
\$ 1090 PLUS	1.030	\$ 1090 PLUS	1.028		\$ 1100 PLUS	1.039	\$ 1100 PLUS	1.029	
	1.022		1.028			1.029		1.029	



## SCHEDULE C - ANNUAL ADJUSTMENT FACTORS, SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAMS - FOR MANUFACTURED HOME SPACE

AREA	FACTOR	AREA	FACTOR
NORTH EAST CENSUS REGION	1.063	MIDWEST CENSUS REGION	1.039
SOUTH CENSUS REGION	1.022	WEST CENSUS REGION	1.035
STATE ALASKA	.921	STATE HAWAII	1.058
PMSA AKRON, OH	1.038	PMSA ANAHEIM-SANTA ANA, CA	1.049
PMSA ANN ARBOR, MI	1.037	MSA ATLANTA, GA	1.030
PMSA AURORA-ELGIN, IL	1.067	MSA BALTIMORE, MD	1.051
PMSA BEAVER COUNTY, PA	1.022	PMSA BERGEN-PASSAIC, NJ	1.062
PMSA BOSTON, MA	1.065	PMSA BOULDER-LONGMONT, CO	.982
PMSA BRAZORIA, TX	.981	PMSA BRIDGEPORT-MILFORD, CT	1.064
PMSA BROCKTON, MA	1.065	PMSA BUFFALO, NY	1.056
PMSA CHICAGO, IL	1.064	PMSA CINCINNATI, OH-KY-IN	1.060
PMSA CLEVELAND, OH	1.038	PMSA DALLAS, TX	.974
PMSA CLEVELAND, OH	1.064	PMSA DENVER, CO	.982
PMSA DANBURY, CT	1.037	PMSA FORT LAUDERDALE-HOLLYWOOD-POMPANO BEAC	1.034
PMSA DETROIT, MI	.974	PMSA GALVESTON-TEXAS CITY, TX	.981
PMSA FORT WORTH-ARLINGTON, TX	1.067	PMSA HAMILTON-MIDDLETOWN, OH	1.060
PMSA GARY-HAMMOND, IN	.981	PMSA JERSEY CITY, NJ	1.062
PMSA HOUSTON, TX	1.064	PMSA KANSAS CITY, MO-KS	1.024
PMSA JOLIET, IL	1.065	PMSA LAKE COUNTY, IL	1.064
PMSA KENOSHA, WI	1.049	PMSA LORAIN-ELYRIA, OH	1.038
PMSA LAWRENCE-HAVERHILL, MA-NH	1.034	PMSA LOWELL, MA-NH	1.065
PMSA LOS ANGELES-LONG BEACH, CA	1.045	PMSA MIDDLESEX-SOMERSET-HUNTERDON, NJ	1.062
PMSA MIAMI-HIALEAH, FL	1.062	PMSA MINNEAPOLIS-ST. PAUL, MN-WI	1.020
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PMSA MONMOUTH-OCEAN, NJ	1.062	PMSA NEW YORK, NY	1.062
PMSA NASSAU-SUFFOLK, NY	1.062	PMSA NIAGARA FALLS, NY	1.056
PMSA NEWARK, NJ	1.062	PMSA OAKLAND, CA	1.043
PMSA NORWALK, CT	1.064	PMSA OXNARD-VENTURA, CA	1.049
PMSA ORANGE COUNTY, NY	1.062	PMSA PITTSBURGH, PA	1.022
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PMSA SEATTLE, WA	1.047	PMSA TRENTON, NJ	1.065
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PMSA VALLEJO-FAIRFIELD-NAPA, CA	1.065	MSA WASHINGTON, DC-MD-VA	1.079
PMSA VINELAND-MILLVILLE-BRIDGETON, NJ	1.062	PMSA WILMINGTON, DE-NJ-MD	1.067
COUNTY WESTCHESTER, NY			



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS - DEFINITIONS OF REGIONS

AREA TITLE	DEFINITION
NORTHEAST CENSUS REGION	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
MIDWEST CENSUS REGION	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
SOUTH CENSUS REGION	Alabama, Arkansas, Delaware, Dist. Of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
WEST CENSUS REGION	Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming
OUTLYING AREAS	Puerto Rico and Virgin Islands use the south census region factors Guam and Trust Territories use the west census region factors
SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS - DEFINITIONS OF METROPOLITAN AREAS	
MSA/PMSA	DEFINITION

Akron, Oh	COUNTY(IES) Portage, Summit Oh
Anaheim-Santa Ana, Ca	COUNTY(IES) Orange Ca
Ann Arbor, Mi	COUNTY(IES) Washtenaw Mi
Atlanta, Ga	COUNTY(IES) Barrow, Butts, Cherokee, Clayton, Cobb, Coweta, De Kalb, Douglas, Fayette, Forsyth, Fulton, G. net, Henry, Newton, Paulding, Rockdale, Spalding, Walton Ga
Aurora-Elgin, Il	COUNTY(IES) Kane, Kendall Il
Baltimore, Md	COUNTY(IES) Anne Arundel, Baltimore, Carroll, Harford, Howard, Queen Annes, Baltimore Ct Md
Beaver County, Pa	COUNTY(IES) Beaver Pa
Bergen-Passaic, Nj	COUNTY(IES) Bergen, Passaic Nj
Boston, Ma	COUNTY Bristol, Ma (PART): TOWNS OF Mansfield, Norton, Raynham COUNTY Essex, Ma (PART): TOWNS OF Lynn, Lynnfield, Nahant, Saugus COUNTY Middlesex, Ma (PART): TOWNS OF Acton, Arlington, Ashland, Ayer, Bedford, Belmont, Boxborough, Burlington, Cambridge, Carlisle, Concord, Everett, Framingham, Gorton, Holliston, Hopkinton, Hudson, Lexington, Lincoln, Littleton, Malden, Marlborough, Maynard, Medford, Melrose, Natick, Newton, North Reading, Reading, Sherborn, Shirley, Somerville, Stoneham, Stow, Sudbury, Townsend, Wakefield, Waltham, Watertown, Wayland, Weston, Wilmington, Winchester, Woburn COUNTY Norfolk, Ma (PART): TOWNS OF Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxborough, Franklin, Holbrook, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Quincy, Randolph, Sharon, Stoughton, Walpole, Wellesley, Westwood, Weymouth, Wrentham COUNTY Plymouth, Ma (PART): TOWNS OF Carver, Duxbury, Hanover, Hanson, Hingham, Hull, Kingston, Lakeville, Marshfield, Middleborough, Norwell, Pembroke, Plymouth, Plympton, Rockland, Scituate COUNTY Suffolk, Ma (PART): TOWNS OF Boston, Chelsea, Revere, Winthrop COUNTY Worcester, Ma (PART): TOWNS OF Berlin, Bolton, Harvard, Hopedale, Lancaster, Mendon, Milford, Southborough, Upton



SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS - DEFINITIONS OF METROPOLITAN AREAS  
MSA/PMSA-----DEFINITION-----

Boulder-Longmont, Co.....COUNTY(IES) Boulder Co  
Brazoria, Tx.....COUNTY(IES) Brazoria Tx  
Bridgeport-Milford, Ct.....COUNTY Fairfield, Ct (PART): TOWNS OF Bridgeport, Easton, Fairfield, Monroe, Shelton, Stratford, Trumbull  
COUNTY New Haven, Ct (PART): TOWNS OF Ansonia, Beacon Falls, Derby, Milford, Oxford, Seymour  
Brockton, Ma.....COUNTY Bristol, Ma (PART): TOWNS OF Easton  
COUNTY Norfolk, Ma (PART): TOWNS OF Avon  
COUNTY Plymouth, Ma (PART): TOWNS OF Abington, Bridgewater, Brockton, East Bridgewater, Halifax, West Bridgewater, Whitman  
Buffalo, Ny.....COUNTY(IES) Erie Ny  
Chicago, Il.....COUNTY(IES) Cook, Du Page, McHenry Il  
Cincinnati, Oh-Ky-In.....COUNTY(IES) Dearborn In; Boone, Campbell, Kenton Ky; Clermont, Hamilton, Warren Oh  
Cleveland, Oh.....COUNTY(IES) Cuyahoga, Geauga, Lake, Medina Oh  
Dallas, Tx.....COUNTY(IES) Collin, Dallas, Denton, Ellis, Kaufman, Rockwall Tx  
Danbury, Ct.....COUNTY Fairfield, Ct (PART): TOWNS OF Bethel, Brookfield, Danbury, New Fairfield, Newtown, Redding, Ridgefield, Sherman  
COUNTY Litchfield, Ct (PART): TOWNS OF Bridgewater, New Milford  
Denver, Co.....COUNTY(IES) Adams, Arapahoe, Denver, Douglas, Jefferson Co  
Detroit, Mi.....COUNTY(IES) Lapeer, Livingston, Macomb, Monroe, Oak and, St Clair, Wayne Mi  
Fort Lauderdale-Hollywood-Pompano Beach, Fl.....COUNTY(IES) Broward Fl  
Fort Worth-Arlington, Tx.....COUNTY(IES) Johnson, Parker, Tarrant Tx  
Galveston-Texas City, Tx.....COUNTY(IES) Galveston Tx  
Gary-Hammond, In.....COUNTY(IES) Lake, Porter In  
Hamilton-Middletown, Oh.....COUNTY(IES) Butler Oh  
Houston, Tx.....COUNTY(IES) Fort Bend, Harris, Liberty, Montgomery, Waller Tx  
Jersey City, Nj.....COUNTY(IES) Hudson Nj  
Joliet, Il.....COUNTY(IES) Grundy, Will Il  
Kansas City, Mo-Ks.....COUNTY(IES) Johnson, Leavenworth, Miami, Wyandotte Ks; Cass, Clay, Jackson, Lafayette, Platte, Ray Mo  
Kenosha, Wl.....COUNTY(IES) Kenosha Wl  
Lake County, Il.....COUNTY(IES) Lake Il



## SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS - DEFINITIONS OF METROPOLITAN AREAS

MSA/PMSA

DEFINITION

Lawrence-Haverhill, Ma-Nh.....	COUNTY Essex, Ma (PART): TOWNS OF Amesbury, Andover, Boxford, Georgetown, Groveland, Haverhill, Lawrence, Merrimac, Methuen, Newbury, Newburyport, North Andover, Salisbury, West Newbury
	COUNTY Rockingham, Nh (PART): TOWNS OF Atkinson, Brentwood, Danville, Derry, East Kingsto, Hampstead, Kingston, Newton, Plaistow, Salem, Sandown, Seabrook, Windham
Lorain-Elyria, Oh.....	COUNTY(IES) Lorain Oh
Los Angeles-Long Beach, Ca.....	COUNTY(IES) Los Angeles Ca
Lowell, Ma-Nh.....	COUNTY Middlesex, Ma (PART): TOWNS OF Billerica, Chelmsford, Dracut, Dunstable, Lowell, Pepperell, Tewksbury, Tyngsborough, Westford
	COUNTY Hillsborough, Nh (PART): TOWNS OF Pelham
Miami-Hialeah, Fl.....	COUNTY(IES) Dade Fl
Middlesex-Somerset-Hunterdon, Nj.....	COUNTY(IES) Hunterdon, Middlesex, Somerset Nj
Milwaukee, Wi.....	COUNTY(IES) Milwaukee, Ozaukee, Washington, Waukesha Wi
Minneapolis-St. Paul, Mn-Wi.....	COUNTY(IES) Anoka, Carver, Chicago, Dakota, Hennepin, Isanti, Ramsey, Scott, Washington, Wright Mn; St Croix Wi
Monmouth-Ocean, Nj.....	COUNTY(IES) Monmouth, Ocean Nj
Nashua, Nh.....	COUNTY Hillsborough, Nh (PART): TOWNS OF Amherst, Brookline, Hollis, Hudson, Litchfield, Merrimack, Milford, Mont Vernon, Nashua, Wilton
	COUNTY Rockingham, Nh (PART): TOWNS OF Londonderry
Nassau-Suffolk, Ny.....	COUNTY(IES) Nassau, Suffolk Ny
New York, Ny.....	COUNTY(IES) Bronx, Kings, New York, Putnam, Queens, Richmond, Rockland Ny
Newark, Nj.....	COUNTY(IES) Essex, Morris, Sussex, Union Nj
Niagara Falls, Ny.....	COUNTY(IES) Niagara Ny
Norwalk, Ct.....	COUNTY Fairfield, Ct (PART): TOWNS OF Norwalk, Weston, Westport, Wilton
Oakland, Ca.....	COUNTY(IES) Alameda, Contra Costa Ca
Orange County, Ny.....	COUNTY(IES) Orange Ny
Oxnard-Ventura, Ca.....	COUNTY(IES) Ventura a
Philadelphia, Pa-Nj.....	COUNTY(IES) Burlington, Camden, Gloucester Nj; Bucks, Chester, Delaware, Montgomery, Philadelphia Pa
Pittsburgh, Pa.....	COUNTY(IES) Alleghany, Fayette, Washington, Westmoreland Pa
Portland, Or.....	COUNTY(IES) Clackamas, Multnomah, Washington, Yamhill Or
Racine, Wi.....	COUNTY(IES) Racine Wi



SCHEDULE C - CONTRACT RENT ANNUAL ADJUSTMENT FACTORS - DEFINITIONS OF METROPOLITAN AREAS  
 -----MSA/PMSA-----

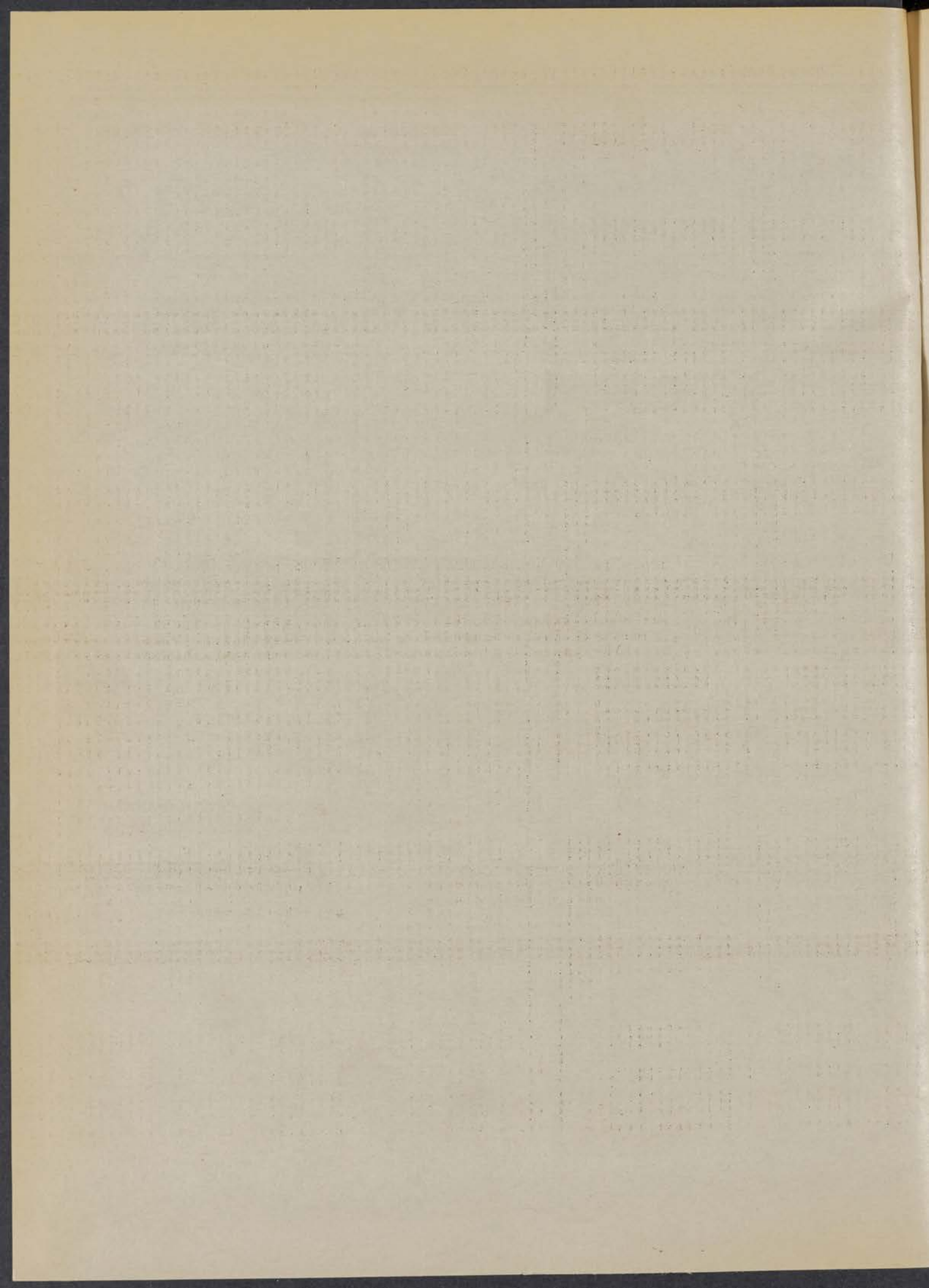
-----DEFINITION-----

Riverside-San Bernardino, Ca.....COUNTY(IES) Riverside, San Bernadin Ca  
 St. Louis, Mo-Il.....COUNTY(IES) Clinton, Jersey, Madison, Monroe, St Clair Il; Franklin, Jefferson, St Charles, St Louis, St Louiscity Mo  
 Salem-Gloucester, Ma.....COUNTY Essex, Ma (PART): TOWNS OF Beverly, Danvers, Essex, Gloucester, Hamilton, Ipswich, Manchester, Marblehead, Middleton, Peabody, Rockport, Rowley, Salem, Swampscott, Topsfield, Wenham  
 San Diego, Ca.....COUNTY(IES) San Diego Ca  
 San Francisco, Ca.....COUNTY(IES) Marin, San Francisc. San Mateo Ca  
 San Jose, Ca.....COUNTY(IES) Santa Clara Ca  
 Santa Cruz, Ca.....COUNTY(IES) Santa Cruz Ca  
 Santa Rosa-Petaluma, Ca.....COUNTY(IES) Sonoma Ca  
 Seattle, Wa.....COUNTY(IES) King, Snohomish Wa  
 Stamford, Ct.....COUNTY Fairfield, Ct (PART): TOWNS OF Darien, Greenwich, New Canaan, Stamford  
 Tacoma, Wa.....COUNTY(IES) Pierce Wa  
 Trenton, NJ.....COUNTY(IES) Mercer NJ  
 Vallejo-Fairfield-Napa, Ca.....COUNTY(IES) Napa, Solano Ca  
 Vancouver, Wa.....COUNTY(IES) Clark Wa  
 Vineland-Millville-Bridgeton, NJ.....COUNTY(IES) Cumberland NJ  
 Washington, Dc-Md-Va.....COUNTY(IES) Washington Dc; Calvert, Charles, Frederick, -columbia(u), Montgomery, Prince Georg Md; Arlington, Fairfax, Loudoun, Princewillia, Stafford, Manassas Prk Va  
 Falls Church, Manassas, Manassas Prk Va  
 Wilmington, De-NJ-Md.....COUNTY(IES) New Castle De; Cecil Md; Salem NJ

[PR Doc. 89-27480 Filed 11-21-89; 8:45 am]

BILLING CODE 4210-27-C







# 30 CFR Part 44

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Wednesday  
November 22, 1989

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## Part VI

## Department of Labor

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Mine Safety and Health Administration

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30 CFR Part 44

Termination of Waivers Granted Under  
the Federal Metal and Nonmetallic Mine  
Safety Act of 1966



**DEPARTMENT OF LABOR**

**Mine Safety and Health Administration**

**30 CFR Part 44**

**Termination of Waivers Granted Under the Federal Metal and Nonmetallic Mine Safety Act of 1966**

**AGENCY:** Mine Safety and Health Administration, Labor.

**ACTION:** Notice of termination.

**SUMMARY:** This notice terminates variances granted under the 1966 Federal Metal and Nonmetallic Mine Safety Act, (Metal and Nonmetal Act), Public Law 89-577, under procedures formerly codified in 30 CFR 55.24-1, 56.24-1, and 57.24-1. The termination of the variances will be stayed for mine operators or miners' representatives desiring continued relief from an existing mandatory safety standard upon the submission of a petition for modification under section 101(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act). The petition must be filed within 180 days of the publication

of this notice and according to the procedures found at 30 CFR part 44.

**DATES:** This action is effective as of April 2, 1990.

**FOR FURTHER INFORMATION CONTACT:** Patricia W. Silvey, Director, Office of Standards, Regulations, and Variances, Mine Safety and Health Administration, Room 631, Ballston Tower No. 3, 4015 Wilson Boulevard, Arlington, Virginia 22203, phone (703) 235-1910.

**SUPPLEMENTARY INFORMATION:** Standards promulgated under the Metal and Nonmetal Act granted authority to Metal and Nonmetal district managers to issue variances in accordance with the procedures and subject to the limitations and restrictions formerly set forth in 30 CFR 55.24, 56.24, and 57.24. The Metal and Nonmetal Act, including these provisions for granting variances, was repealed by the Federal Mine Safety and Health Act of 1977. A review of all existing variances granted under the Metal and Nonmetal Act is necessary because many of the regulations on which the variances were based have been subsequently revised. Termination of variances granted under the Metal and Nonmetal Act will require

that all variances be processed under the petition for modification procedures in 30 CFR part 44, Rules of Practice for Petitions for Modification. This will assure that MSHA, mine operators and miners' organizations update requirements; it will also eliminate confusion as to mine specific requirements.

Mine operators or the representatives of miners desiring continued relief from an existing mandatory safety standard may submit a petition for modification under section 101(c) of the 1977 Mine Act. The procedures for applying for a modification of a standard are outlined in 30 CFR part 44, Rules of Practice for Petitions for Modifications of Mandatory Safety Standards. MSHA has set an effective date for the termination of the variances of 180 days from the date of this notice, which will allow petitioners sufficient time to file a petition for modification.

Dated: November 15, 1989.

**William J. Tattersall,**

*Assistant Secretary for Mine Safety and Health.*

[FR Doc. 89-27446 Filed 11-21-89; 8:45 am]

**BILLING CODE 4510-43-M**



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**H.R. 2710/Pub. L. 101-157**

Fair Labor Standards Amendments of 1989. (Nov. 17, 1989; 103 Stat. 938; 8 pages) Price: \$1.00

**H.R. 3287/Pub. L. 101-158**

District of Columbia Revenue Bond Act of 1989. (Nov. 17, 1989; 103 Stat. 946; 2 pages) Price: \$1.00

**H.J. Res. 425/Pub. L. 101-159**

Designating November 12 through 18, 1989, as "Community Foundation Week". (Nov. 17, 1989; 103 Stat. 948; 1 page) Price: \$1.00

**S.J. Res. 215/Pub. L. 101-160**

Acknowledging the sacrifices that military families have made on behalf of the Nation and designating November 20, 1989, as "National Military Families Recognition Day". (Nov. 17, 1989; 103 Stat. 949; 2 pages) Price: \$1.00



